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DEMOBILISATION

IT is a heartening thing to feel that, despite constant official warnings against undue optimism, and with our enemies still in occupation of most of the Continent of Europe, the subject of demobilisation has moved from the status of a theoretical departmental matter to something approaching a major national issue. The distant dream in which the anxious heart scarcely dared indulge begins to take a definite shape. There would be something wrong with the nation if it found itself able to suppress the very human emotions which are stirring, so that young men, eagerly awaited as individuals, became measured only as cogs in the post-war machine.

The Minister of Labour has made a definite statement on the question on the basis of "First in, first out," and we believe it is true to say that most of us feel that if he has blundered it has been a warm-hearted mistake, and one which ought not to need his head upon a charger before it can be rectified, for this is not a question of politics though it is obviously one of policy.

How are we to judge the proper course? Are we to be coldly judicial, and disregard all questions other than that of fair play to each individual case, and accept the consequences as factors inevitable to the post-war problem? It is not easy to be a dispassionate judge, but the task is at any rate specific and circumscribed. Length of service in a conscript army is not, in itself, a virtue, any more than brevity of service is a disgrace. It must not be forgotten that the State interfered with the process by retarding the calling up of men whose civil services seemed likely to be of greater use to the country than their military services. At the initial end of the process, then, the State acted much more in the capacity of law maker than of law administrator, between which there is a vast difference in function. The law maker is very much concerned with the consequences of the law. The law administrator carries little responsibility for those consequences.

So it would seem that it is for us to concern ourselves mainly with the function of the law maker, in the democratic spirit for which war is being still waged. "What is best for the country as a whole?" must be the acid test, not forgetting that one of the worst things the country can suffer is widespread discontent and disgruntlement. After the last war we contrived the outer form of a system which respected all these considerations, but few of us can look back with much pleasure upon its outcome. The "Pivotal Man" lived up to the clumsy title officialdom had coined for him, and tended to become not the man round whom large numbers revolved in industry, but the man who succeeded in being most glib in his appeals, and able to pull the most strings. Nothing could have been more conducive to discontent than the release of smart "wanglers," while valuable craftsmen remained for little more reason than that penmanship and spelling entered little into their craft. And that, surely, is the first red light we must heed. Let us see that the system we adopt operates for the purposes we have in mind. Perjury, which is a realist, though ugly, name for "wangling," is as serious an offence in the excited atmosphere of demobilisation as it is in the cool air of normal existence, and rather than let demobilisation degenerate into a battle of wits, many would accept the crisp system which Mr. Bevin advocates, which follows the obvious prescription that Smith, who has been homesick longer than Jones, should, in mere justice, be sent back to his home before the other.

But will Smith thank us if he returns to a prolonged period of enforced leisure, pleasant for a few days, but boring and disheartening as it drags on, for no other reason than that there is none other so skilled as Jones to start the works going? Or will the young man who was dragged from home with no trade, or only half a trade learned, enjoy for long the waiting period until the trained instructors have been released in sufficient numbers to resume that broken education?

Surely the whole problem, like almost all the problems which face us in the near future as well as in the present, falls into that group answering to the much over-worked word, "Planning." We cannot presume to plan for the coal mining industry or for agriculture, but we should consider ourselves competent to plan for building and architecture. We should be able to assess the need for men and the size of the task, and to judge with wisdom when and in what order we need the men back. And if we do it, we can leave all questions of sentiment to settle themselves, and we can ignore all other trades and professions than our own. Mr. Bevin will then have a definite job to do, to judge as between trade and trade what is best for the smooth working of the country, and not as between man and man. One thing, however, is clear, and that is that architecture and building being the very basis of post-war reconstruction should have a high, if not first, priority.

This, then, is our contribution to the issue. Let each industry, trade and profession waste no more time in discussing general policy, but get down to the solid task of devising a demobilisation scheme for its own people, measuring first the task, then the man-power, and finally the order in which that man-power should be marshalled. For each there will be an ideal sequence, which will vary as between one trade and another, but none can judge—certainly not Mr. Bevin—what is the ideal sequence for any of them, excepting only those who are right in it and know its essential difficulties and needs.

We commend this to the Institute and the Federatio with a reminder that time pr esses, and that the task arduous. And we urge that any such scheme should be framed upon the long view, bearing in mind that the urgent building programme will still be incomplete twenty years hence, so that we have to consider a generation ahead in our plans—a hint that education is as urgent as immediate building.

Within the plan, however, as human beings, moved by emotions as strong as those of Mr. Bevin, we concur with the principle that, when the real needs of the community have been satisfied, the rule "First in, first out" is a just and proper one.

NOTES AND NEWS

The "Greater London" Plan Exhibition.

THE Exhibition on "Greater London—Towards a Master Plan," which was shown at the National Gallery during June and July, has now been transferred to the Royal Institute of British Architects, at 66, Portland-place, London, W.1, and is open to the public between 10 a.m. and 6 p.m. There is also a miniature exhibition at the offices of the London Regional Reconstruction Committee, at 15, Adeline-place, London, W.C.1, which can be seen by appointment.

"Practical Planning" Exhibition.

THE "Practical Planning" Exhibition, organised by the Institutions of Civil Engineers and the Municipal and County Engineers, was opened on Tuesday, at the premises, in Great George-street, S.W.1, of the former Institution, by the Minister of Town and Country Planning (Mr. W. S. Morrison, M.P., K.C.), whose speech will be found reported on page 288.

This is the first major exhibition to be held at the Institution of Civil Engineers, and it is designed to show the public that "(a) there is a logical sequence in planning; (b) attention needs to be paid to physical and economic factors as well as to æsthetic considerations; (c) that there must be co-operation between the engineer and all interests concerned from the start; and (d) full use must be made of the help which engineering science can give in the development of Britain."

Opening with an extract from Mr. Arthur Greenwood's speech in the House of Commons in May, 1941, as exemplifying the aim of practical planning, the exhibition continues as a sequence of related panels under the captions of: The Aim; the National Problem; Regional Planning; Development of Existing Towns; Approved Planning Schemes; Examples of the Work of Local Government Engineers; Planning of a New Town; Planning Ahead; Forestry and National and Regional Parks; Agriculture; Co-ordination of Traffic; Transport; Electricity; Gas; District Heating; Water Supply; Sewerage and Sewage Disposal; Regional Drainage; Heat Conservation; The Engineer's Part in a Building; Waterloo Bridge; Cooking; Alternative Materials; Aluminium and Aluminium Alloys; Plastics; Full-size Model of Kitchen; Sound-Insulated Room. The exhibition is open to the public until October 30, from 10 a.m. to 6 p.m. It has been planned by Mr. A. Hulme Chadwick, A.R.C.A.

Clyde Valley Area Consultant.

THE Clyde Valley Regional Planning Advisory Committee has unanimously approved of the appointment of Professor Patrick Abercrombie as planning consultant for the area. Professor Abercrombie has undertaken to give the Committee a report on the important question of housing in the area within six months. It was stated that the cost of the two-year plan was estimated at approximately £18,000, of which sum £5,000 represented the consultant's fees, while from £6,000 to £7,000 would go to his technical assistants. The balance represented the administrative expenses, including £1,000 for the printing of the report.

The Duke of Wellington.

BY the death, in action, of his nephew, the sixth Duke, Major Lord Gerald Wellesley becomes the seventh Duke of Wellington. The new Duke is an architect in practice with Mr. Trenwith Wills, F.R.I.B.A. He himself is a Fellow of the R.I.B.A. and F.S.A., and holds the appointment of Surveyor of the King's Works of Art, in which capacity he has compiled a new catalogue of the art treasures in the Royal palaces. Though he is 58, he has served in the present war in France and the Middle East, and his only son, an officer in the Household Cavalry, has won the M.C.

A Nevinson Picture for County Hall.

THE London County Council have "gratefully accepted" an offer made through the Minister of Home Security by Mr. C. R. W. Nevinson, A.R.A., to present to the Council for hanging in the County Hall a picture by him of a London girl child injured in an air raid. The picture is "Camden Town Kids Don't Cry—Cockney Stoic." This work was exhibited at the Royal Academy Summer Exhibition of 1941.

Ringway Airport, Manchester.

THE illustration on page 289 shows the design of Mr. G. Noel Hill, F.R.I.B.A., A.M.T.P.I., Manchester City Architect, for a proposed Ringway Airport at Manchester. The scheme, we understand, can only be regarded as a preliminary approach to the problem. No exact information is yet available about the circumstances which will influence airport building design, but certain conditions have been assumed in order to prepare plans which can be considered in a critical sense and to form a basis for further schemes. Accommodation has been provided for a total of 600 passengers incoming and outgoing within a peak period of 20 minutes. The scheme takes the form of pre-war airport design, but the ultimate scheme will be designed in a more flexible manner to permit of change and expansion, and the problem of providing cover for passengers to and from aeroplanes parked over a wide area is being considered.

Appointments.

MR. GEORGE C. ROBB, A.R.I.A.S., deputy county housing architect, Lanarkshire, has been appointed county architect of Stirlingshire. Educated at George Heriot's School, he had architectural experience in Edinburgh, Leeds, and Oxford before going to Hamilton in 1941.

MR. EVAN A. E. EVANS, A.R.I.B.A., principal assistant architect to Glamorgan County Council, has been appointed Glamorgan Deputy County Architect.

A Planning Appointment.

BRIERLEY HILL U.D.C. has appointed Mr. T. Alwyn Lloyd, J.P., P.P.T.P.I., F.R.I.B.A., 6, Cathedral-road, Cardiff, and Mr. H. Jackson, F.R.I.B.A., 24, Bennett's-hill, Birmingham, as joint consulting architects to prepare plans for post-war developments in their area.

Professional Announcement.

MR. HENRY J. CRONE, P.A.S.I., has commenced practice at 103, West Regent-street, Glasgow, C.2, and would be glad to receive trade catalogues.

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COMING EVENTS

Tuesday, October 12.

ARCHITECTURAL ASSOCIATION. Sir Ernest Simon on "Planning and Building in the United States of America." 36, Bedford-square, W.C.1. 6 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS (Scottish Branch). Presidential Address by Mr. D. W. Low, Royal Technical College, Glasgow. 6.15 p.m. Address repeated at Heriot-Watt College, Edinburgh, on October 13. 6 p.m.

HOUSING CENTRE. Dr. H. Boyle on "Mental Health in Planning." 13, Suffolk-street, S.W.1. 1.15 p.m.

Wednesday, October 13.

INSTITUTIONS OF CIVIL ENGINEERS AND MUNICIPAL AND COUNTY ENGINEERS: PLANNING EXHIBITION. Mr. Ernest Brown, M.P., on "Development of Regional Water Supplies and Main Drainage." 2.30 p.m.

INSTITUTE OF WELDING. Mr. E. Hassler on "Some Aspects of Machine Design." Conway Hall, Red Lion-square, W.C.1. 5.30 p.m.

Thursday, October 14.

TOWN AND COUNTRY PLANNING ASSOCIATION. Mr. Arnold Whittick on "The Forces and Planning." 1, Grosvenor-place, S.W.1. 12.45 p.m.

Saturday, October 16.

INSTITUTE OF QUANTITY SURVEYORS (West of England Branch). Mr. Philip Honey, A.M.I.E.E., on "The Power Behind the Plan." The Grand Hotel, Bristol. 3.30 p.m.

ASSOCIATION OF BUILDING TECHNICIANS (Manchester Branch). Mr. E. L. Leeming on "Post-War Housing." 16, St. Mary's Parsonage, Manchester.

ROYAL SANITARY INSTITUTE. Mr. H. H. Doubleday on "Town and Country Planning and Health." Town Hall, Royal Leamington Spa. 10.30 a.m.

TOWN AND COUNTRY PLANNING ASSOCIATION. Conference at Rhyl. Mr. Clough Williams Ellis and Mr. W. A. Eden will speak. 11 a.m.

From *The Builder* of 1843

Saturday, October 7, 1843. *Price* 3d.

NORWICH CATHEDRAL.—Our noble Cathedral has assumed a new appearance; and its spire is converting into an observatory, for the purposes of the trigonometrical survey, now making throughout the kingdom, by order of the Board of Ordnance. A party of sappers and miners have arrived, and have commenced their works by carrying scaffolding up to the top of the spire, whence they will take their observations. The weather-cock is again taken down and its place will, for the present, be supplied by the instruments, etc., used in the survey. Now that the scaffolding is again replaced, and the vane dismounted, we hope the opportunity of removing the heavy finial recently placed there will not be neglected.—*This comment was reprinted from the "Norfolk Chronicle."*

DRY ROT IN BOMB-DAMAGED HOUSES

By W. P. K. FINDLAY, D.Sc.

DURING recent months many cases of extensive dry rot have been brought to the notice of the Department of Scientific and Industrial Research. In many instances the buildings had been more or less severely damaged during the 1940-41 "blitz." It is thought that a brief description of some of these cases and of the curative measures recommended may assist architects and builders in coming to a decision as to the best method of treating such outbreaks under present-day conditions.

Case 1.

The building involved was a four-storeyed block of offices with basement, built about the middle of the nineteenth century and having brick walls mostly 18 in. thick. In one wing of the building the top storey and roof were almost completely destroyed by fire in 1940 and a considerable amount of water had penetrated down to the basement. At the time of the inspection in 1943, dry rot caused by *Merulius lacrymans* was found to be present on every floor, being particularly active in the window frames and skirtings in the outer walls. The frames of the doors along the corridors were also badly attacked. In some of the rooms the ends of the floor joists were decayed where they entered the wall; the floors themselves were less severely attacked, boards being decayed only in the proximity of the outer walls.

No decay whatsoever was found in the other wing of the building which had escaped the fire, so that it is reasonable to attribute the damage brought about by dry rot to the soaking with water at the time of the fire.

Since it was desired to retain in use as much of the accommodation as possible, it was recommended that reconstruction of the building should be deferred until after the war, every possible step being taken meanwhile to dry out the building and to check the spread of the rot by removing linoleum and taking up floorboards along the outer wall, etc.

Case 2.

In this case the building formed part of an eighteenth-century palace. It consisted of a three-storeyed edifice with very thick brick walls and a great deal of woodwork in the form of panelling, etc. Many bond timbers were present in the walls, and the double floors were heavily constructed and contained a great deal of pugging. The roof had been completely destroyed by fire in September, 1940, and a temporary galvanised iron roof had been erected shortly afterwards.

When inspected early in 1943 it was found that there was an extensive attack of dry rot caused by *Merulius lacrymans*, which had more or less destroyed the floor of several rooms of the first storey and ground floor, and severely damaged the antique wooden panelling in a number of rooms.

Since the accommodation was not urgently required and it was not proposed to attempt any restoration until after the war, it was recommended that—

(1) All decayed timber should be removed, cutting away decayed joists for 12-18 in. beyond the last visible signs of attack;

(2) The brickwork containing fungal strands should be thoroughly dressed with two coats of sodium fluoride solution (six ounces to the gallon of water).

(3) The maximum possible ventilation should be given to the building.

It was also suggested that the building should be inspected at six-monthly intervals, and further treatment given to any portions of the walls in which renewed fungal growth might be evident.

Case 3.

The building involved was a seventeenth-century mansion. A small area of roof had been damaged in 1941 by fire caused by an incendiary bomb. When inspected in 1943 it was found that part of the panelling, cornice and rails in a first-floor room were decayed by *Coniophora cerebella*. The walls were dry and the fungus appeared no longer to be active. Since this fungus can spread only under very moist conditions and will eventually die out if the building remains dry, the owner was recommended only to remove the severely decayed wood and leave the wall exposed so that it could be observed.

Case 4.

In this case a small two-storeyed private house had been struck in 1940 by an incendiary bomb which had caused a fire that destroyed the roof and first floor. The whole building had been saturated with water. Repairs and redecoration of the house were completed by the summer of 1942. In the spring of 1943 fruit bodies of the dry-rot fungus were observed in the back sitting-room, and on investigation it was found that this floor which was covered with oak parquet flooring was severely decayed. Fungus was also present in the hall floor which was covered with linoleum. There was no evidence that dry rot had existed before the fire, and it seemed reasonable to assume that the dry rot was the indirect result of war damage. It was recommended that all decayed wood be removed and replaced with wood which had been thoroughly treated with a wood preservative, after the brickwork had been sterilised in the usual way. Since there was still evidence of dampness in the walls, it was strongly recommended that increased ventilation under the floors should be provided, and that linoleum and oak parquet should not be relaid until all signs of this dampness had disappeared.

Case 5.

The roof of a semi-detached house had been damaged by bomb-blast in September, 1940, and the damage had not been made good until several months later. When our inspection was made early in 1943, rot caused by *Merulius lacrymans* was found in the back sitting-room spreading out from the wall adjoining the kitchen floor. It was established that dry rot had been present in the kitchen floor at a date previous to the bomb damage, and although this floor had been repaired, it seemed probable that the rot in the adjoining room had spread from this original infection. While the penetration of rain during the time the roof was open to the weather had probably rendered conditions favourable for the spread of the rot, it could not be proved that the present outbreak was due primarily to war damage, although this had no doubt accelerated its development. The usual remedial measures were recommended.

General Discussion.

Architects and builders are faced with some difficult problems when they are called in to deal with outbreaks of dry rot under present-day conditions.

If the house has been damaged by enemy action, they may be asked to express an opinion as to whether the rot can be considered as part of the war damage. It is often extremely difficult to give a precise "yes" or "no" answer to this question. If the previous records fail to disclose any evidence of rot prior to the bombing and it can be proved that the woodwork was saturated with water during or subsequently to the raid, there would appear to be fairly good circumstantial evidence for ascribing the dry rot to war damage. If, on the other hand, it can be proved that there had been outbreaks of rot prior to the bombing and large timbers in a very advanced stage of rot are discovered, war damage cannot be blamed for the whole of the rot, although it may be claimed that the war damage has accelerated or intensified its development. In our experience, dry rot has been found to develop very much more frequently after fire than after structural damage caused by blast effects, since the quantities of water used in fire-fighting are usually very much greater than the amount of rain-water which penetrates through a damaged roof. The walls of houses in which incendiary bombs have caused fires may be saturated with water and remain damp for years after the incident.

It is always difficult to decide how long an outbreak of dry rot has been in progress, as the rate of spread of the fungus depends very largely on the temperature and the nature of the wood and its moisture content. Many cases of ordinary boarded floors on 2-in. by 4-in. joists being destroyed by dry rot in about two years are on record, and there is no doubt that under optimum conditions the fungus can spread rapidly from the focal points of original infection.

Remedial Measures.

In practice it is now not always possible to carry out the standard remedial measures against dry rot which are normally recommended. Unless the accommodation is urgently required, it may be difficult to get permission to spend the sum of money necessary to effect complete repair of the property. Well-seasoned timber is scarce, and skilled labour is otherwise engaged. It may, therefore, be better to carry out what one may frankly describe as first-aid repairs and to delay the completion of repairs and redecoration until after the war, when better material will be available for the purpose. The important thing is to arrest the spread of the rot so as to prevent its spreading to woodwork which is now sound and to render the structure safe and habitable.

In every case a full and careful inspection of the premises should be carried out. All severely decayed timber and any fungal growths should be removed at once and, wherever possible, *all decayed* timbers should be removed, cutting away for 12-18 in. beyond the last visible signs of attack. Only in severely damaged buildings where decay is rife should it sometimes be necessary to remove all the woodwork.

If the brickwork is permeated with fungal strands an attempt should be made to sterilise it. Application of a blow-lamp flame for this purpose is effective only if the flame is passed repeatedly over the surface until it is very hot to the touch, and under present-day conditions it is probably better to rely on a plentiful application of an antiseptic solution such as commercial sodium fluoride at a concentration of six ounces to the gallon of water.

The most important thing is to get rid of the moisture which has enabled the fungus to get a hold on the woodwork, and this can best be done by improving ventilation around the woodwork. It is, of course, assumed that further ingress of

moisture has already been stopped. Impervious floor coverings such as linoleum should always be removed when there is damp in the floors. It is often desirable to take up floor boards, particularly alongside external walls, in order to allow the ends of the joists to dry out. Pugging which has been soaked with water retains moisture over long periods, and, wherever possible, this should be removed so that the air circulates round the joists.

It is a great advantage to be able to defer repairs and reconstruction for some months after the preliminary work of removing the decayed wood and sterilising the walls has been completed, as this gives the brickwork a chance to dry out thoroughly before new timber is brought into contact with it, and permits periodical inspection of the brickwork for signs of renewed fungal growth which require to be dealt with. In cases where reconstruction can be deferred, the preliminary steps towards eradicating the rot should be undertaken at once, so that the building will be free of infection when the time comes to replace the woodwork.

Where it is desired to make the premises fit for reoccupation, the usual procedure for dealing with dry rot should be followed, but under present conditions the minimum amount of new timber should be used for replacements; for instance, decayed door and window surrounds and skirtings should be replaced by a layer of hard plaster or cement wherever possible.

Particular attention should be given to the preservative treatment of all new timber used for replacements, since this may be imperfectly seasoned and contain a great deal of sapwood. If the timber supplied for replacements is found on delivery to be green or practically unseasoned, it should be stacked openly under cover for at least a month or two to dry out as far as possible, and only under exceptional circumstances of great urgency should it ever be used in this state in a building. In such cases the boards should only be fixed down temporarily, and they should be relaid when shrinkage has taken place. Preservative treatment should on no account be omitted if the timber appears to be insufficiently seasoned.*

For further details regarding treatment of dry rot in buildings damaged in air raids, reference may be made to War Time Building Bulletin No. 21 (H.M.S.O., price 1s. net); and for advice regarding treatment in specific cases of dry rot, application should be made to the Forest Products Research Laboratory, Princes Risborough, Aylesbury, Bucks.

ACKNOWLEDGMENT.—The work described above was carried out as part of the programme of the Forest Products Research Board and is published by permission of the Department of Scientific and Industrial Research.

OBITUARY

C. E. Kendall, O.B.E., F.R.I.B.A.

We regret to record the death, on September 23, of Mr. George Ernest Kendall. Mr. Kendall, who was an assistant architect to the Board of Education, was 68.

F/O A. R. B. Ball.

We regret to announce the death from wounds received in action of Flying Officer Alan Roy Bradford Ball (Student, R.I.B.A.). F/O Ball was 32 years of age, was educated at Queen's College, Taunton, and, after serving his articles with his father's firm of Messrs. Ball and Pope, architects, when he attended the Bristol School of Architecture, joined the staff of Messrs. Wm. Cowlin, Ltd., builders, with whom he served some eight years.

THE "PRACTICAL PLANNING" EXHIBITION

OPENING BY MR. W. S. MORRISON.

THE "Practical Planning" Exhibition, which has been arranged jointly by the Institution of Civil Engineers and the Institution of Municipal and County Engineers, was opened on Tuesday last at 12, Great George-street, S.W.1, by MR. W. S. MORRISON, M.P., the Minister of Town and Country Planning.

In the course of his speech Mr. Morrison said that to-day the Institution of Civil Engineers modified an austere tradition in accordance with the spirit of our times. It showed by that display that it had learnt the value of the modern arts of publicity. It employed them there, not only with propriety and skill, but, as the title of the exhibition—"Practical Planning"—showed, for practical purposes and in a planned shape. "Nor have you been content merely to stage an exhibition," continued Mr. Morrison. "You have arranged conferences to coincide with it—two special conferences for women among them. You have organised visits by local authority representatives from all parts of the country, and you have made special arrangements for older boys and girls to come and see it. In short, you have set about this exhibition, as your members by long tradition set about their work, with professional thoroughness and up-to-date enterprise.

Services of the Civil Engineer.

"Your Charter of 1828 described the profession of a civil engineer as 'the art of directing the Great Sources of Power in Nature for the use and convenience of Man.' This Exhibition—and, indeed, this audience—is a reminder of the wide variety of subjects and the increasing specialisation into which the modern practice of that art has led you since Telford's day. Traffic by road and rail, by water and air—bridge building—water, gas and electricity supply—sewerage—land drainage and many branches of agricultural engineering—the construction of the foundations and the frames of buildings and the provision of the engineering services which they demand—the distribution and the conservation of heat—the insulation of sound—the continual exploration of alternative materials. That, as no member of this Institution needs telling, is not a complete catalogue of your modern activities.

"Many of the services for which you are responsible can be illustrated by an exhibition with peculiar advantage, because they are concerned with the bones and arteries of the living community rather than with its flesh and its complexion. For an exhibition can, like an X-ray, disclose them to a community but little aware of their courses and their structure. It can, and I am sure that your exhibition will, do more than that. It can demonstrate the amount of hard thinking and calculation, of solid, accurate work, that the proper planning of a community exacts at every stage from those to whom it is entrusted. It can thus make the public realise that planning is not just a matter of bright thoughts and pretty pictures—of slipping in an imposing building here and opening out a pleasant vista there. It is, on the contrary, from first to last a laborious, organic and, what is more, a continuous process. Much of that work—particularly perhaps its engineering element—has to be done, if not below the surface, at any rate behind the scenes. I find it a singularly happy thing that you should have overcome that difficulty and prepared, from material not obviously lending itself to publicity, a businesslike, practical and yet thoroughly effective exhibition.

"Mr. Hilaire Belloc, I seem to remember, once remarked that he would be prepared at the shortest notice to write convincingly as a critic on any of the arts save only the domestic and quickly tested art of cookery. I am tempted to say that I should be willing to discuss with passable readiness many of the elements which go to the planning of the land, but not—at any rate in this company—the work of the civil engineer. I venture, however—and not without some honest knowledge of the subject—to dwell for a moment on the essential relationships between your profession and that of other members of the planning team, as that team must be conceived in 1943.

"Your work is both fundamental and complex. It is meant to be enduring; it usually represents a large capital investment. There is a high seriousness about it. A mistake made by an engineer might dislocate the daily life of a community. A mistake made by those whose work follows upon yours may readily lead to the disturbance—the extremely expensive disturbance—of services which it has taken years to plan and complete.

Co-operation between Architects and Engineers.

"When lately I was privileged to speak to the Council of the Royal Institute of British Architects, I emphasised the need for the architects to work in team with the engineers and the surveyors. Speaking to-day to civil engineers, I will emphasise the converse need for engineers to work in team both with those whose work should precede, and with those whose work must follow, their own. It is important that you should be in touch with the growing company of research workers, and that you should collaborate with the town planners, who rely upon the groundwork of knowledge which the research workers provide. It is not less important that you should work in team with the town planners, the architects and men of other professions, whose work will follow and be influenced by your own. No road engineer, for example, can to-day plan his road wisely without a knowledge of the purposes which it is to serve and the communities through and by which it must pass. He must have regard to æsthetic as well as practical considerations, to its setting in the landscape or among buildings, and to the furniture which it will need—from trees to traffic signs, from sand-bins to telephone booths. Every water engineeer must take into account the national or regional distribution of gathering grounds, and such possibilities as that the grounds, to which he looks for his water, may need, under proper safeguards, to be included in a national park. So I appeal to the engineers to go into active partnership at an early stage of their work with the planners and the architects, and the landscape specialists, and the rest of the team whose work has to fit in with theirs. Run no risk of their ever being forced to demand the displacement of services which, with better knowledge, would never have been laid out as they are. Never reduce them, through lack of earlier collaboration, to dabbing ornaments on engineering works which should never have looked as they do.

"But these are matters which your exhibition will point better than any words of mine could do. I express the confident hope that it will win to itself, and send away enlightened, all that host of visitors which its sponsorship by your two Institutions and its high topical interest should certainly attract."

THE TENNESSEE VALLEY AUTHORITY

DR. JULIAN HUXLEY AT THE HOUSING CENTRE.

ADDRESSING a crowded meeting held at the Housing Centre on September 28, DR. JULIAN HUXLEY said the Tennessee Valley scheme had now been operating for about ten years and, among other benefits, had succeeded in providing electricity, introducing better farming and starting new industries in the region. It was the only planning project on a great scale that had come to fruition in a democratic country.

The area in which the Authority operated was about three-quarters the size of England and Wales. The Tennessee River was over eleven hundred miles long. It had been over a mile wide before the dams were started that would convert it when finished into a series of lakes that would often be from three to three and a half miles wide. The total area of these lakes, together with that of storage dams in the hills, would be about 1,100 square miles. The T.V.A. was an overall planning authority for an area large enough to make it worth while to have an efficient staff and every possible facility for carrying out plans.

Primarily the dams had been instituted to improve navigation, control floods and, as a by-product, produce electricity—all necessary powers for this and also some other matters being united in the one authority—thus avoiding the multiplication of authorities that we have in this country, each doing one thing only and naturally coming up against the others in various ways. Architecture and housing might be taken as an illustration of how the co-ordination worked. Malaria was a scourge in the country, so the dams were sited, some of the later ones especially, with reference to its control. Secondly, in the actual building of the dams engineers worked in co-operation with site planners and architects. The dams were not regarded as industrial structures, made to look as good as possible, but all the various aspects of the problem had been considered from the first. In the result the dams were not only efficient as engineering structures but they were great works of art both in themselves and in relation to the landscape. At first the engineers had regarded the architect as a man who made himself a nuisance by introducing frills and fal-lals into the finished structure, but when they found he was interested in the relation of the different portions of the structure to each other, and of the whole structure to the site, they settled down to co-operation.

Attention was given not only to the broad architecture of the dams, but minor things such as traffic lights were considered, and the later gantries, in particular, showed a great improvement in design over the earlier ones. They were more functional and more unified. The use of architects for the projects carried out by private firms, and, in fact, wherever there was construction, was encouraged. Among other things, local authorities who distributed the electricity produced at the dams were persuaded to have show-rooms which would set an example of good architecture

The great area of inland waterways provided for boating and other forms of recreation, and from this point of view a deliberate study of the area had been made. Local authorities had been encouraged to develop their resources. In the result, whereas before the work was commenced there was only a very small trickle of tourists into the district, it was estimated that immediately before the war eleven million dollars a year was being spent there by visitors.

The Tennessee Valley Authority avoided imposing its own ideas on the region; it sought rather to get various interested groups to come together so that they might produce their own scheme. It endeavoured to get local authorities, universities and private groups of every description to participate in as voluntary a way as possible. This was important. He was rather worried by the tendency of governing bodies here to try to get everything into their own hands. The central body should do research, but should co-operate on a voluntary basis with the localities and the universities. Otherwise we should get a totalitarian régime. For the past four or five years the T.V.A. had been aiming at a more decentralised administration, *i.e.*, one where the maximum amount of decision was made on the spot and not at a centre. There was co-ordination again in the field, not only at the higher level, and there was the utmost participation by voluntary agencies and by the people themselves. The Tennessee Valley Authority had come to the idea that planning in a democratic country would only be good if done with the full participation of the people of the region.

M.O.H. ANNUAL REPORT

THE PROBLEM OF HOUSING.

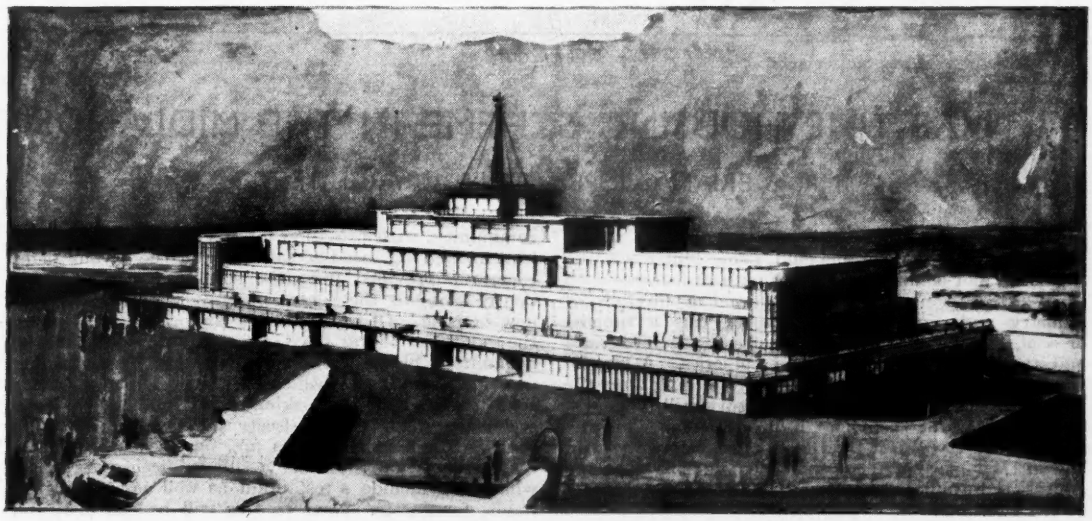
THE following reference to Housing appears in the Annual Report of the Ministry of Health (Cmd. 6468. H.M. Stationery Office. Price 1s.) :—

The first consideration during the year, as in previous war years, has been the prompt execution of first-aid repairs to houses damaged by enemy action. The total number of houses so repaired up to March 31, 1943, was 2,500,000, while well over 1,000,000 have received more extensive repairs.

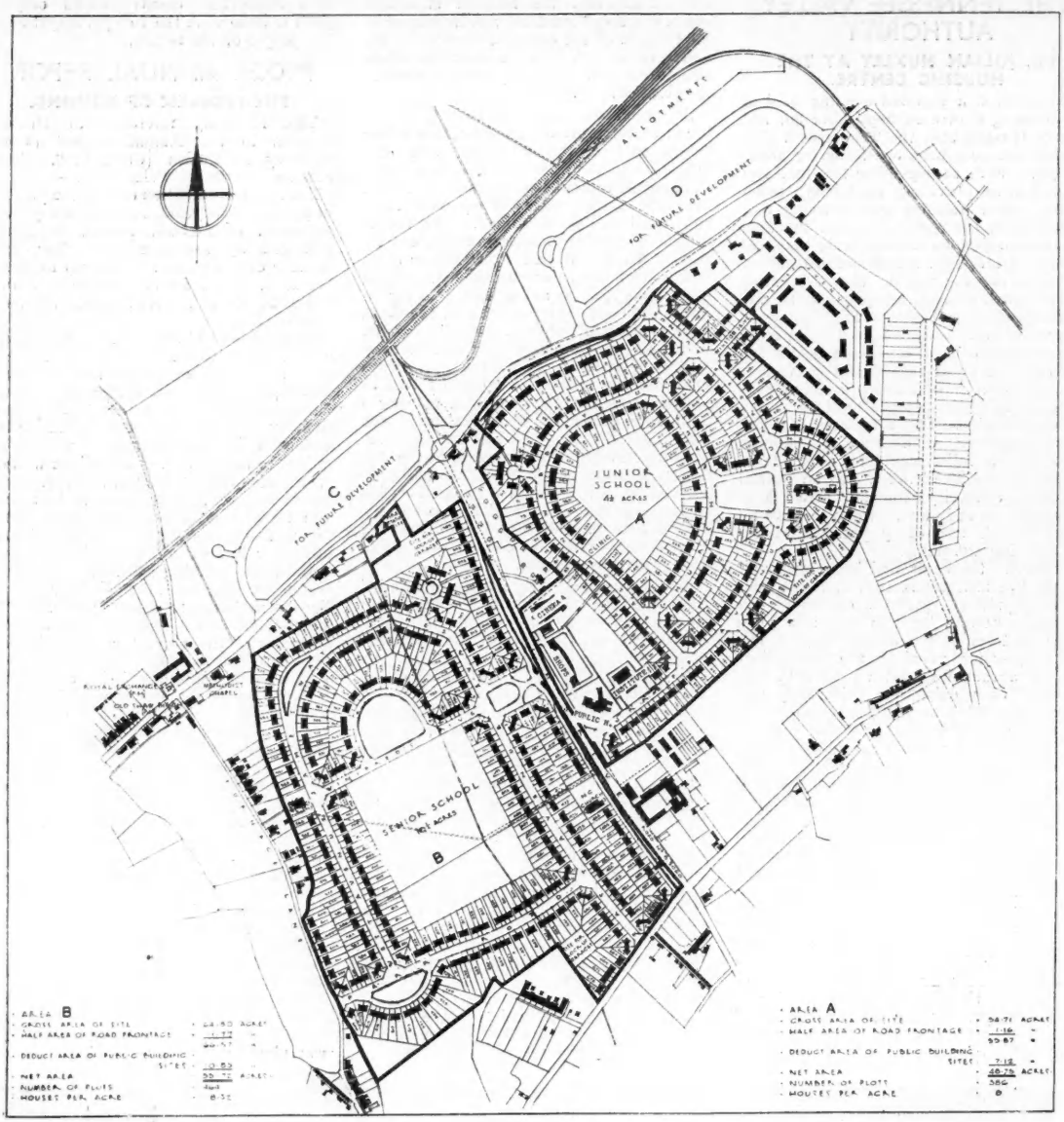
The Report points out that, as a result of the interruption of building, the continued shortage of labour and materials, loss of accommodation through war damage, and large movements of population, "the housing position is indeed serious, and a vast amount of work is required to bring housing conditions up even to the standard of 1939, a standard by no means as high as that aimed at before the war broke out. The crux of the matter is labour and materials, supplies of which are still very limited and which have to meet many other pressing calls. The quantities which can be set aside for housing are hardly sufficient to ease the worst of the deficiencies. Despite the size and the intensity of the need, the policy imposed on the Ministry has continued to be to secure the best use of existing accommodation and to use the limited amount of available labour for repairs in such a way as to keep the largest possible number of dwellings habitable on a wartime standard—a standard considerably below what would be tolerated under peace-time conditions.

"It should be emphasised, however, that this policy of making the best use of existing accommodation has enabled movements of population, on a scale never known before, to be made smoothly and with but little recourse to new building. In this way it has been a most important contribution to the war effort, by the saving of labour and materials which would otherwise have had to be diverted from essential work."

The Report also deals with repair of badly damaged houses, essential maintenance work, the rural housing scheme, post-war plans, and rent restriction.



PROPOSED TERMINAL BUILDING, RINGWAY AIRPORT, MANCHESTER. (See page 286.)



THE LAYOUT.

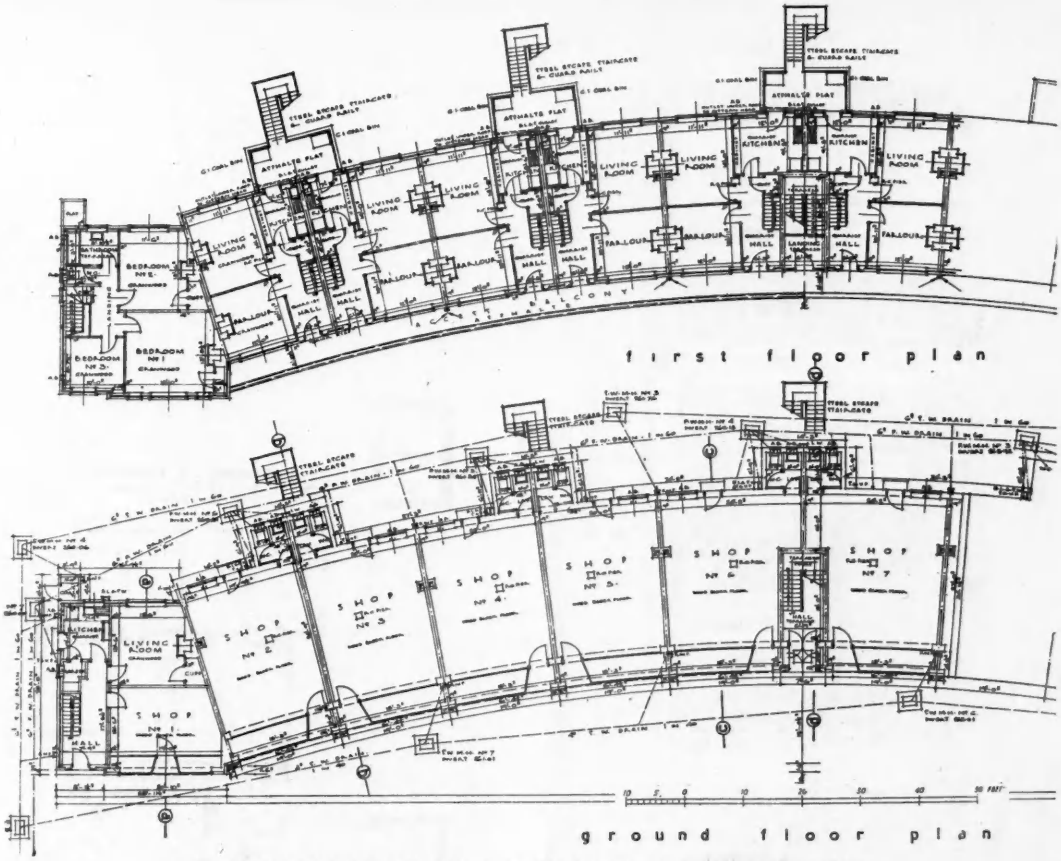
A WAR-TIME HOUSING SCHEME IN THE MIDLANDS

MR. J. BRIAN COOPER, F.R.I.B.A., ARCHITECT.

THIS ESTATE IS BUILT ON A SITE OF SOME 155 ACRES, part pasture and part arable land, rising gently towards the south and completely bare of natural features such as trees. The neighbourhood showed a mixture of industry and agriculture. All about was a tangled area of scrappy buildings interspersed with farm land and the waste heaps of disused collieries. A few of the "barrack" dwellings which were built for the colliers in the middle of the last century still remained, although most of them had been condemned and demolished by the Rural District Council before the war, and in their place a rehousing scheme of just over 100 houses, the Jubilee Estate, had been built to the east of the site.

The building of this new housing estate gave a great opportunity for the creation of a reasonably complete community, with provision for the main essentials of a healthy and balanced social life, and the layout plan, therefore, provided from the start for a Community Centre close to the centre of gravity of the old and new housing. Of the buildings comprising the Centre, the exigencies of war have so far only permitted one to be built—a block of 12 shops with flats over, forming one side of an open space and set back behind a service road and small car-parking space off an existing secondary road, which bisects the site from north to south. Flanking the shops are, on one side, the site for a cinema, on the other a site for licensed premises which will include a restaurant as well as several bedrooms for guests. Next to this will be the institute, providing a hall to seat about 370, with a permanent stage, and having a canteen, library, and various other

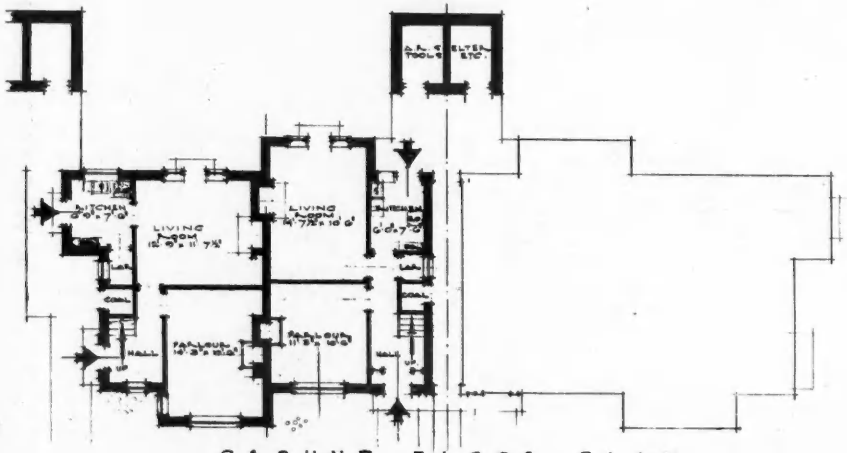
THE SHOPPING CENTRE. *Below* : PLANS.



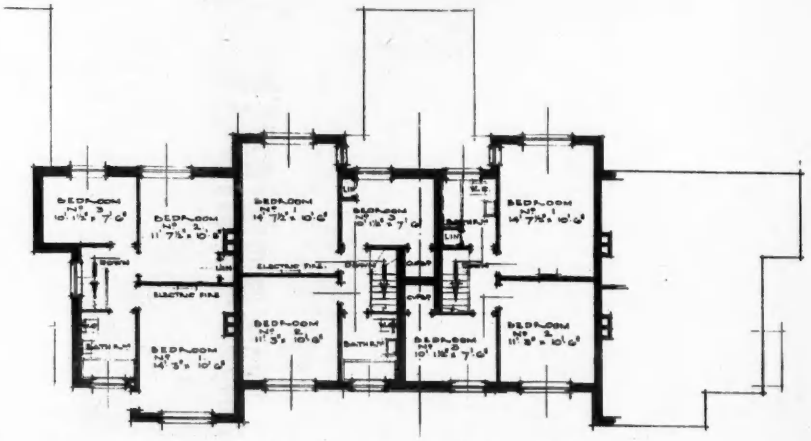
A WAR-TIME HOUSING SCHEME IN THE MIDLANDS.

A BLOCK OF FOUR HOUSES. *Below* : THE PLANS

A PAIR OF HOUSES.

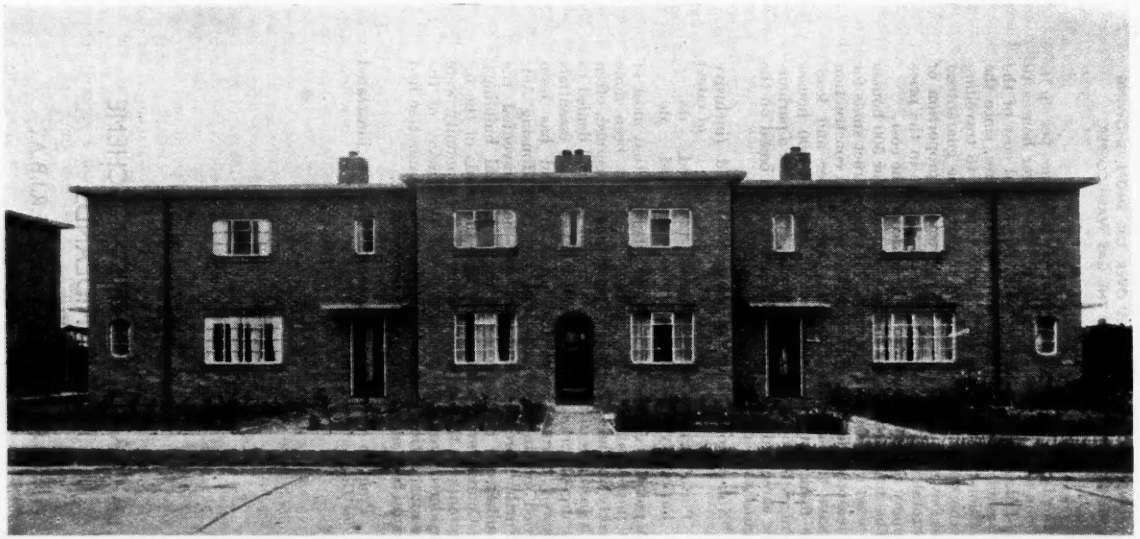


GROUND FLOOR PLAN



FIRST FLOOR PLAN

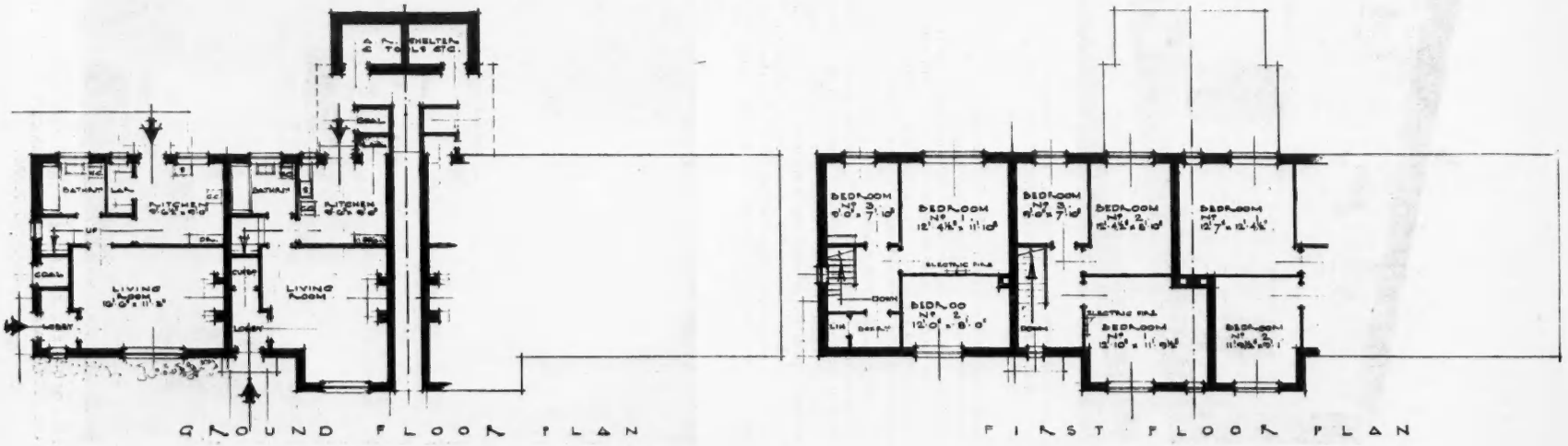
rooms for social clubs and the youth movements of both



A BLOCK OF FOUR TERRACE HOUSES. *Below* : THE PLANS.

rooms for social clubs and the youth movements of both sexes. Near by there are sites for the church and vicarage, and the Methodist and Free Churches. Sites are reserved for two schools—one a junior school together with a nursery school on a site of 4¼ acres, adjoining which will be the children's clinic ; the other for a senior school. Provision was made also for a house for a resident doctor.

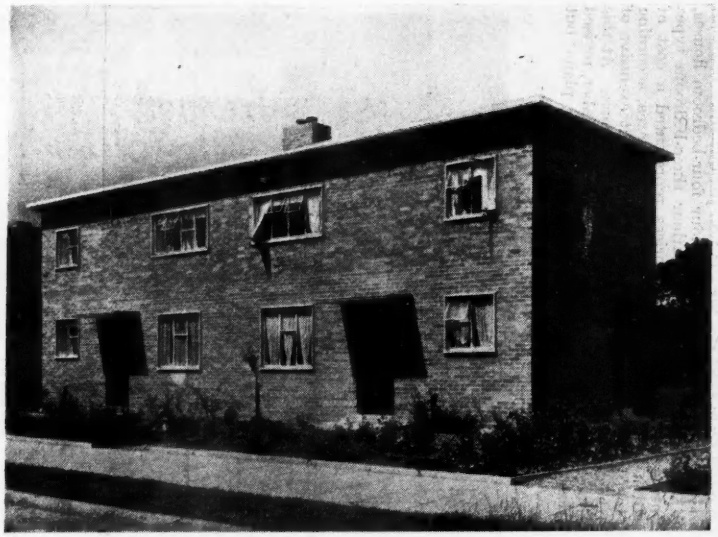
The layout plan for this new estate of some 850 houses was approved by the Rural District Council, the County Council and the Ministry of Health within a month of the architect receiving his first instructions, and tenders for the first 500 houses and for the necessary roads and sewers were invited in November, 1939. The requirements that were laid down were for 100 non-parlour houses with three bedrooms, 350 parlour-type houses with three bedrooms, and 50 parlour-type houses having four bedrooms. The designs for the houses were, in the first months of war, along traditional lines with brick walls and pitched roofs of timber covered with plain tiles. Over 50 firms tendered. The lowest tender figures ranged from £363 15s. for the non-parlour three-bedroom type to £483 15s. for the parlour four-bedroom houses, the figure for the normal parlour three-bedroom types being about £445. These prices represented a cost of from 8s. 7d. to 9s. 9d. per sq. ft. of floor area, according to type, inclusive of fences and drains, but exclusive of the roads and sewers, which cost £66 per house. At this juncture, due to the difficulty in obtaining timber, revised designs were prepared, utilising the same plans but

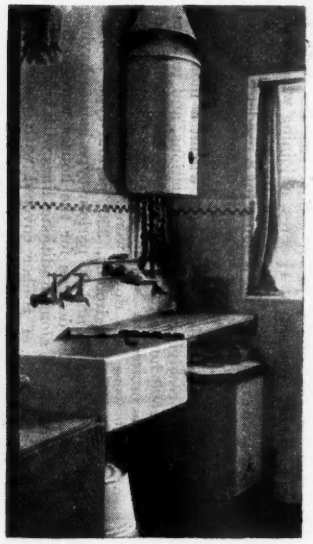


GROUND FLOOR PLAN

FIRST FLOOR PLAN

A WAR-TIME HOUSING SCHEME IN THE MIDLANDS. MR. J. BRIAN COOPER, F.R.I.B.A., ARCHITECT.





Above: ANOTHER PAIR OF HOUSES. *Right*: PART OF THE KITCHEN OF ONE OF THE MAISONETTES OVER THE SHOPS, SHOWING THE MULTIPOINT INSTANTANEOUS GAS WATER HEATER (SUPPLYING BATH AND SINK) AND THE GAS WASH-COPPER.

modifying the construction by the elimination of as much timber as possible, the principal change being the substitution of flat concrete roofs for the normal pitched type. Contracts were signed in February, 1940, and, in spite of labour and materials difficulties, the first houses were completed and occupied early in July, 1940.

In September, 1940, tenders were publicly invited for the remaining 350 houses. On this occasion only 15 firms sent in tenders. The plans were similar to those of the houses in course of construction, but only the doors and a small quantity of shelving remained in timber. The lowest tenderer's prices for these houses were £507 10s. for the non-parlour type, about £577 for the parlour three-bedroom houses, and £682 10s. for the four-bedroom parlour type. These figures represented a price per sq. ft. of floor area of from 12s. 1½d. for the larger houses to 12s. 11d. for the smaller types. The actual cost of the houses is, of course, in excess of these figures, since the provisions of the Uniformity Agreement as to travelling for the operatives to and from the site, the guaranteed week, overtime, etc., form an appreciable proportion of the total value of the contract and the rise in the price of many materials had also to be added to the cost.

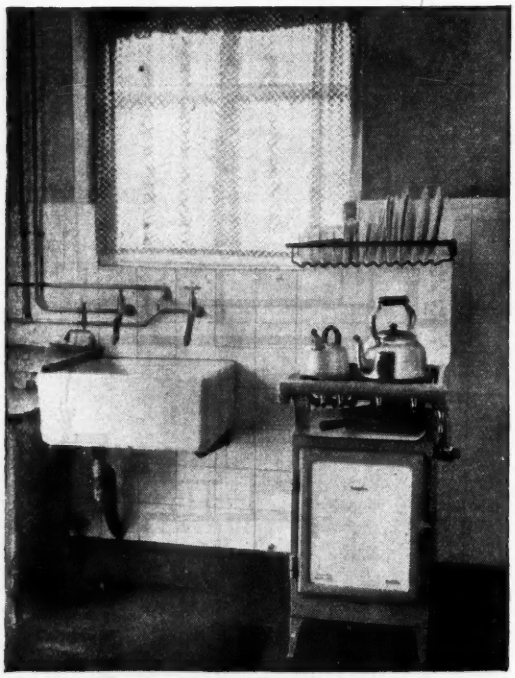
The final accounts for the first contracts for 500 houses show an increase of 57 per cent. on the contract sums for all reasons, inclusive of the changes made in construction to save timber, and at a later date copper and lead. The final cost per square foot of the first 500 houses averages 14s. 5d. including all extras, or £740 for a parlour-type three-bedroom house. The rentals are based on the original tender figures and are as follows:—

Non-parlour 3-bedroom house ...	13s. 7d.	(inclusive of rates)
Parlour-type 3-bedroom house	15s. 6d.	do.
Parlour-type 4-bedroom house	17s. 9d.	do.

A point in connection with the scheme is that most of the important war-time building work has been done directly for the Government Department concerned, often with facilities in obtaining labour and material denied to less urgent priorities. This scheme has in all essentials followed normal peace-time procedure and has been carried out in accordance with the 1936 Housing Act.

Furthermore, although the war has prevented the simultaneous development of the communal buildings, the Council are glad to think that the needs of the inhabitants of this area as citizens of a community were considered from the beginning and that many of the recommendations of Lord Justice Scott's Committee had already been acted upon in the development.

*** Progress views of the development were illustrated in *The Builder* for April 10, 1942.



PART OF THE KITCHEN IN ONE OF THE HOUSES, SHOWING THE GAS COOKER, AND THE GAS-HEATED WASH-COPPER UNDER THE DRAINING BOARD.

A WAR-TIME HOUSING SCHEME IN THE MIDLANDS.

MR. J. BRIAN COOPER, F.R.I.B.A., ARCHITECT.

DESIGN AND THE INDUSTRIAL SYSTEM

ADDRESS BY MR. HERBERT READ AT THE HOUSING CENTRE.

THE effect of social and industrial systems on design was the subject of an address by Mr. Herbert Read at the Housing Centre, 13, Suffolk-street, S.W.1, on Tuesday, September 21.

MR. E. J. CARTER, who presided, said that Mr. Read, as Director of the Design and Research Unit, was helping to make the British people conscious of the importance of design in industry. Artists and architects had not had full enough contact with the production side.

MR. READ, in the course of his address, said there might be a difference of opinion as to the industrial system towards which we were moving, but any alternative to competitive capitalism involved some form of centralised control, either governmental or industrial. If industrial, the whole field of production would be gradually crystallised into a few powerful combinations, international in scope and to some degree competitive with one another—heavy metals competing with light alloys, synthetic rubber with plantation rubber, shipping with airways, and so on; but if the centralised control was governmental it would be nationalistic and totalitarian, coming into direct conflict with the international cartels. Totalitarian control might be combined with either Socialist or Fascist ideology; monopolistic control did not yet aspire to an ideology, knowing the desired ideology could be evolved once the control was enthroned.

With regard to technical tendencies, the industrial revolution had been essentially mechanical: from the invention of the steam engine to that of the electric dynamo and internal combustion engine, it had taken the form of the progressive development of more and better machines. But parallel with this physical revolution a chemical revolution had also taken place, and now chemistry had begun to take a lead and threatened the whole structure of industry. A change was being effected from the exploitation of raw materials to the elaboration of synthetic materials. Not all the new materials were, strictly speaking, synthetic, but they were all preferable to the old ones. Thus plastics could replace wood, glass, rubber and leather; aluminium and magnesium alloys could replace iron, steel, tin and zinc; rayon and other synthetic fibres could replace cotton, wool, silk, etc., and even eliminate the process of weaving. The chemical phase of the industrial revolution would probably be more violent and far-reaching than the mechanical one had been.

He did not think design had anything to fear from the economic tendencies: it could hardly fare worse than it had done under *laissez-faire* capitalism. The profit motive had always been detrimental to design: the number of people willing to pay more for a well-designed article had always been inconsiderable from the market point of view. But in recent years manufacturers had begun to realise that, other things being equal, good design could be made to pay. The lead in this direction had come not from capitalists and financiers but from the managers of great corporations; the first impact of design on the public being due to the late Frank Pick, of the London Transport Board.

When not profit but public service became the guiding motive, good design became important because it brought prestige to the managerial class. It would seem as though the same considerations ought to apply to the totalitarian state, but in Russia æsthetic factors had been left out of both the five-year plans, although it would not have cost anything to put them in. Germany and Italy had been design conscious, but in their cases design had not arisen out of the industrial system: design had been imposed upon the system and was academic.

As to the effect of international combines, these had so far been mainly confined to producing primary materials, metals and chemicals. With the possible exception of the electrical industry, they had not attempted to control the making-up of their materials into articles for the retail market. That had been left to manufacturers, and the vulgarity of most plastic articles was because no research had gone into their design comparable with the chemical research that had produced the substance itself. When the utilisation of these raw materials became the concern of the cartels, it was likely we should see an immense improvement in their design.

In the course of a discussion that followed, THE CHAIRMAN said that from the housing point of view there were two aspects of design. First, there was the quantity problem: enough houses must be provided, and there was a danger of the best programmes being held up because of their being designed by architects whose work was out of sympathy with the mass of the people. In that case the goods put forward would not be willingly accepted, and he believed this had happened after the last war. The best architects had been able to provide a good technical solution, but often the design factor made no appeal, and the result had been that the mass of the people had gone over to something much more symptomatic of their own temperament. Half-timber had been the essential expression of the popular will. Architects and designers should find out what the people wanted, and they should meet and elevate that demand. In this direction very little had been done so far.

MR. ARNOLD WHITTICK said that in the majority of cases people were entirely ignorant of design. The purpose of education was to stimulate an instinct already there, and we must begin with children three or four years old. If we could create a demand for good design in standards which the industrial development could produce, we should have gone a long way towards solving the problem.

BOOK REVIEWS

Britain's Town and Country Pattern. (Nuffield College.) Faber and Faber. 2s. 6d.

This pamphlet, prepared by the Nuffield College Social Reconstruction Survey, has a definite interest for all those concerned with the future programme for reconstruction. It deals with the relationships between the Barlow, Scott, and Uthwatt Reports, and Mr. G. D. H. Cole in his introduction makes the extent to which these support each other very clear and what further steps would have to be taken to bring the proposals they contain into operation.

It is pointed out that it remains wholly unsettled over what areas these are to operate, through what machinery they are to be locally co-ordinated and who is to foot the bill. These are not, of course, reasons against their acceptance; indeed, the more there is still to be decided the more important it is to settle the main principles soon.

It is agreed by all three Committees that planning involves securing the best possible use of the land and distribution of population and industry in the national interest, but on the machinery for securing this object there is much less agreement between them. Taking into consideration that the Barlow Report was submitted before the war, and the others in 1942, it seems only natural that the latter should visualise a more centralised control. Recent events, and the obvious need for co-ordination, tend to emphasise this, and the problem appears to be to devise a method capable of combining the advantages of Governmental and local administration.

New Towns for Old. By STANLEY D. ADSHEAD. Dent & Sons. 6d.

In this brochure Professor Adshead estimates that, owing mainly to improved standards of living, the target for house building might be fixed at one million during the first five years after the war; he poses the question as to where these should be built and gives the opinion after due study of the requirements of industry that some fifty new towns should be founded. For these he allocates eighteen thousand each, thus accounting for a possible total of 900,000, apart from rebuilding in damaged areas and the need for agricultural cottages.

Such towns should be self-contained units and not liable to become satellites only reinforcing the present overgrown conurbations. For such a programme the implementation of the Barlow, Scott and Uthwatt Reports by one or more Acts of Parliament would be necessary, in order to provide for the economical acquisition of sites and the measure of control demanded for good social conditions and general amenity.

The principles of civic design are next considered in detail, followed by a review of the factors dictating the appropriate types of house building and its relation to other elements in planning. It is pointed out that during the present century science has provided such a varied collection of new building materials that modern building is quite different from anything seen before. These modern buildings designed on a utilitarian basis can, however, be inspired with an expression of character, a feeling for proportion and interest in the quality of their surfaces, which justifies the title of abstract architecture. Both in town planning and building the main difficulty is visualised as the preservation of harmony between those traditions deserving to be respected and the new developments.

A Parallel of the Orders of Architecture, Greek, Roman and Renaissance. By CHARLES NORMAND. Re-edited by R. A. CORDINGLEY, M.A., F.R.I.B.A., M.T.P.I. London: John Tiranti, Ltd. Price 10s. 6d.

Normand's "Parallel of the Orders of Architecture" was first published in Paris in 1819. The first English edition was published by A. Pugin in 1829. The present edition was first issued in 1928, and after several reprintings it has now been re-edited by Mr. R. A. Cordingley, who has completely revised the text and included four introductory plates which show methods by which the principal parts and proportions of the orders can be memorised for the purposes of rapid drawing and design.

At this time of day the work needs no commendation, but a word of praise is due to Mr. Cordingley for his scholarly editorship. The "orders" are out of fashion nowadays, but so long as they remain a feature of architectural education—and it cannot be denied that apart from their value in giving a sense of proportion they are an admirable discipline for the student mind—Normand will be an indispensable work for study and reference.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

"Crown Houses": Work for the Industry.

To the Editor of *The Builder*.

Sir,—The letter from "H. M. D." appearing in your issue of October 1 under the heading "Crown Houses" deserves careful consideration, as it would indeed be regrettable if the urgently needed rehousing of our people were to be hindered by lack of a plan for the provision of the necessary finance.

I am particularly interested in "H. M. D.'s" reference to the imminent shortage of work for building contractors; this is an undoubted fact, and the trade is badly in need of some indication as to the intentions of the Government regarding its employment during the remainder of the war period.

We are told that labour is in short supply, but will this position long continue? The labour now being released from many finishing building sites is being redirected not to other builders but to civil engineering firms on runway contracts; presumably this type of work, too, will soon dry up, and one would like to know whether the contracting Ministries will then be ready with a programme of work to absorb the remaining building trade resources.

The alternative to the release of more building work—so urgently needed if contractors' organisations are to remain in being—is the wholesale disbandment of trained staffs which have been attached to individual firms for 10, 20 or 30 years past. Is it really the intention of the Government that some of the best firms in the country should be allowed to disintegrate in this way, and so be forced into a state of unpreparedness for the heavy post-war programme?

The advertisement columns of your paper show that large numbers of building trade executives and foremen are already looking for work, and their numbers will be added to considerably in the coming months; surely such a state of affairs cannot long be allowed to continue, when there is so much work to be done, and when there is every indication that considerable labour forces will be free in the New Year, in view of further withdrawals from the industry.

A possibility which is worrying many contractors at the present time is that such contracts as there are may be concentrated in the hands of a select few of the largest firms, who would be in a position to pick and choose from others' disengaged executives and foremen, thus creating for themselves something approaching a position of monopoly for the busy post-war days ahead.

S. Wilkinson.

Kettering.

Payment by Results.

To the Editor of *The Builder*.

Sir,—Ever since the date of its introduction I have been closely associated with the Payment by Results scheme, and study of the matter has made me arrive at the conclusion that, in its present form, the scheme, on the whole, is not producing any real increased output.

The fact that the M.o.W. has only set official targets for a comparatively few of the main building and civil engineering operations which are normally encountered gives rise to much discontent from operatives who are employed upon work which is either of an unmeasurable nature or that which has not been officially assessed for bonus purposes. Furthermore, as the majority of the target schedules include for work being measured with all labours included, it is frequently impossible for some gangs to reach the target, and, alternatively, owing to the lack of labour, the target for precisely the same operation can become unwarrantably easy to attain.

It is true that the scheme does provide for targets being adjusted to suit particular site conditions, but experience has shown that each individual has a different interpretation as to what adjustment, if any, is to be made.

The greatest drawback of all appears to be that the system, in its present form, does not encourage gangs to give consistently good results, primarily because as they are not penalised in any way if they do not reach the target output, the temptation is to go slowly on those operations where small quantities are involved, or which necessitate an excess of labour, to nurse their strength to make a large bonus on a following operation which has a more easily attainable target.

I feel that the shortcomings of the present Payment by Results scheme could be largely overcome if all the main Government contracting authorities would agree upon one common schedule of prices similar to the present W.D. schedule and set a fixed labour target price against each item. The entire progress of any particular contract can then be measured each week, and the actual labour costs, when put against the agreed target costs, will result in a final profit being calculated, and, on such profit, bonuses can be apportioned on an agreed scale to all operatives engaged on the works.

Under such a scheme as outlined above, it will be manifest that as all operatives without exception are to be allowed to participate in the weekly bonus, greater co-operation between different trades would immediately make itself felt, and each individual contract would work as one large team.

Leslie T. Colls.

Purley, Surrey.

The Uthwatt Report and Building Societies.

To the Editor of *The Builder*.

Sir,—In your issue of September 17, Mr. David W. Smith, of the Halifax Building Society, is reported as having stated that the State acquisition of development rights in land would strike a mortal blow at the ideals of house ownership.

I do not see that it need do anything of the kind. If land were nationalised the State could grant leases in perpetuity at a reasonable ground rent, and householders could have all the advantages of freehold ownership, with the additional advantage that they would not have to find capital for the purchase of their plots.

Moreover, only by a system of State ownership will it be possible to ensure a proper planning of land to its most efficient economic uses, and the checking of that rampant speculation in values which has done so much harm to our country.

F. G. Coates, M.Inst.R.A.

Leatherhead, Surrey.

A FRIEND IN NEED—
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R.I.B.A.

Election of Members.

On September 28, the following members were elected to the Royal Institute of British Architects :—

As Fellows (11).—D. W. Aldred, P.A.S.I. (London); A. G. Alexander (London); A. R. F. Anderson (London); E. H. Ashburner, B.Arch. (Lancaster); J. S. Bramwell (Nottingham); H. Holland (Watford); C. F. Jones (Cardiff); D. H. McMorran (London); H. G. Simms, M.T.P.I. (Dublin); and J. O. Thompson (Leicester). *Overseas.*—M. K. Jadhav (Baroda State, India).

As Associates (9).—B. Barry-Walsh (University College, Dublin); R. C. Campbell (North Harrow); H. A. J. Darlow (London); S. C. Halbritter (A.A.); D. P. Hanly, B.Arch. (N.U.I.) (University College, Dublin); Lieut. J. B. O'Dea, B.Arch. (University College, Dublin); and P. J. Scally, B.Arch. (N.U.I.) (University College, Dublin). *Overseas.*—A. W. Bowman (Christchurch, New Zealand); and Miss J. D. A. Dobson, B.Arch. (Rand) (Johannesburg).

As Licentiates (35).—H. W. Alger (Hythe, Kent); J. Anderson (Tunbridge Wells); F. Boothman (Aylesbury, Bucks); R. E. Bowker (Warwick); R. H. Cake (Shotley Gate, Suffolk); J. Clarke (Stoke-on-Trent); H. Clayton (Cradley, Nr. Malvern, Worcs.); A. R. G. Collins (Maidenhead, Berks); J. H. Crowther (Brighouse, Yorks); H. T. Dunham (Norwich); H. N. Edwards (Cardiff); L. E. Ellis (Exmouth, Devon); W. A. Funnell (London); H. B. Gilbert (London); J. Hilditch (Prescot, Lancs); H. W. Holder (Bristol); R. C. Holt (Cheshire); H. B. Hutchinson (London); W. C. Kain (London); A. S. Kinnear (Edinburgh); J. E. R. Leed (Oxford); F. Lloyd (Mold, Flintshire); C. E. W. Marsh (Douglas, Isle of Man); P. J. May (Cardiff, Glam); H. T. Medhurst (Orpington, Kent); L. J. Multon (Dudley, Worcs); J. Newton-Smith (London); H. A. Osbourne (Hemsworth, Nr. Pontefract, Yorks); F. J. Radford (London); S. E. Rodger (Watford); F. W. Rowe (Worcester); H. Schofield (Nottingham); W. F. Smith (Kinghorn); G. J. W. Stringer (Gerrards Cross, Bucks); and J. W. Tate (Wigan).

"Bristol in New York."

In a postcript broadcast last Sunday, Mr. L. W. Brockington, K.C., of Canada, said that there was in the city of New York one of those magnificent highways built, as so many were built, by the vision and energy of our American allies. "At one point in the road stands a great hospital dedicated to the care of sick children. Opposite the hospital is a playground with green lawns that run down to the wide river. And by the road where the playground and the hospital meet there has been erected a tablet. This is what it says: 'The foundation of this road is the rubble from the bombed City of Bristol, England.'

"The stones from the shrines of Bristol raised in worship and bricks of humble dwelling-places—all broken by man's wickedness—were brought over as ships' ballast from the Old World to help to build this broad highway in the New World. The image is there for all to see, the dream for all to interpret."

"SCIENCE AT YOUR SERVICE"

SCIENCE AND THE HOUSE.

INAUGURATING a series of broadcast talks on "Science at Your Service" on October 1, DR. JULIAN HUXLEY, F.R.S., asked why should we need science to come butting into our houses? Had not man been able without science to produce the most gracious and efficient homes? The answer was both "Yes" and "No." "It is true that a good Queen Anne house, for instance, is as attractive a place to live in as one could wish. But when it was built, most of our population were still living in squalid hovels of insanitary if picturesque cottages. Indeed, throughout all history, most human beings have been badly or inadequately housed. Science is needed to help us to remedy that." A second reason was that the nineteenth century certainly produced wonderful progress in some directions, but it also produced the ugliest and dreariest as well as the biggest towns in history; new and larger slums; jerry-building; traffic chaos; ribbon development. The net result was so vast and so chaotic that nothing but drastic planning could possibly adjust it to real human and social needs; and planning, if it was to be any good, implied the use of scientific method. The third reason was that in the long run science had something to say in every field of human life.

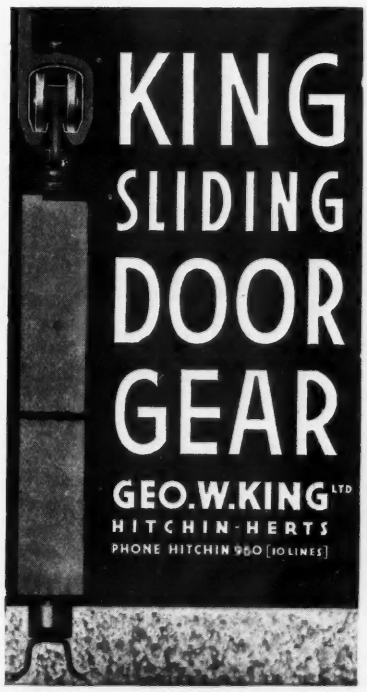
Sometimes science could improve something old and familiar. Thus it could test traditional materials like bricks, set up standards for their manufacture, find out their most economical use. Or it might give us things which were wholly new. There was the quite recent invention of plastic adhesive or glue which was also waterproof. This was already employed in the construction of our Mosquito bombers. In building, its most important use would be to waterproof plywood. Careful tests had shown that in an average house the outer wall of brick was somewhere about twice as thick as it need be for the support it had to give. So we could replace the inner half of the wall by something else which would give better heat insulation and so cut down fuel costs. One of the best materials was a synthetic boarding made from odd pieces of wood cut up fine. Our new plastic could be made of any colour, applied to paper with a polished surface, and then stuck on to the boarding. That gave a really lovely finish to a room, quite as attractive as the best distemper or wallpaper; and it was cheap, washable and damp-resistant.

"Other technical applications of science for housing," said Dr. Huxley, "have already been developed on a large scale in some other countries, such as the method of district heating, by which heat is piped to all the buildings within an area, just as light or gas is now. Another is the Garchey system of refuse disposal for blocks of flats; all your refuse is tipped down a hole in your sink and then used, after treatment, as fuel to provide heat. We want such methods to be given a full and fair trial here."

Then science helped in another way by providing a firm basis for building standards. In some cases public authorities would have to change their regulations if we were to get the best results. Good sound insulation was essential, as everyone knew who had lived in a block of flats where all sorts of harmless and even desirable activities were forbidden to tenants because of the noise they made. "The cheapest and simplest method of sound insulation between two rooms is to build the party wall double with an empty space in the centre; but this is now prohibited under the by-laws covering building.

"In any case, don't let's forget that beauty as well as comfort is something which our houses can give us. It is no more expensive to have good architecture and good design in fittings and furnishings than it is to have bad architecture—or no architecture at all—and shoddy, vulgar design. . . . To get these new possibilities realised in our houses, co-operation is needed from three different quarters—the builders and architects, the Government, and the public. The builders and architects are actively co-operating in all the Government schemes; and the public can always help in keeping them up to the mark. Further, the public—and that is all of us—must not let the immense need for quantity of housing which will face us after the war make us forget the equally great need for high quality in our houses.

"But mere demand won't give us what we want without the most careful planning and organisation to carry it out. In particular, we need far-reaching Government decisions on various matters of principle. First on planning—the location of industry; the basis for compensation when land or development rights are bought for planning purposes; the grant of compulsory powers of acquiring land; and so on. Secondly, as regards financial assistance for good housing. During the war we have in one important sphere of life, that of food, adopted the principle that what counts is not the ability to pay, but human need. It is the babies and the mothers that get the oranges and the extra milk—not the rich. In general, rationing is based on the idea that there is a minimum standard of diet, both in amount and quantity, below which we cannot afford to allow anyone to fall. Are we or are we not going to apply the same principle to housing? Are we going to say that there is a certain minimum standard of accommodation, comfort and beauty below which we as a nation cannot afford to allow anyone to fall? I personally hope so."



REBUILDING DEVASTATED FRANCE, 1918-22

IN a paper presented to the Association for Planning and Regional Reconstruction recently, Mrs. G. Lloyd (who was introduced by Mr. Cart de Lafontaine, a member of "La Renaissance des Cités," much of whose material had been used in the paper) said that the end of the fighting in November, 1918, left the battlefields of France in a state of chaos. Over most of the area buildings, roads and railways were destroyed; the ground was covered with miles of barbed wire, live shells, mines and trenches. During the war very little planning was done at all. The reconstruction of this shattered countryside offered an unrivalled opportunity for bold planning; but the work had to start at once. The Armistice came, in the end, with unexpected suddenness, and the plans were not ready.

The most urgent tasks to be taken in hand were: (1) To remake some of the most vital roads and railways so that the rest of the work could proceed; (2) to clear up the worst of the débris from the battlefields and do the preliminary work of levelling; (3) to provide some sort of temporary shelter for the people returning to their homes.

It was not until the Spring of 1919 that the Government produced its policy for reconstruction. Legislation was introduced in 1919 covering "Control of Building," "Compensation for War Damage," and the "Redevelopment of the Land." The main provisions of the Housing and Town Planning Act were: (1) Local authorities were given wide powers of control over building in order to secure proper drainage, water supply, open spaces, preservation of places of interest, etc.; (2) local authorities were to prepare a general plan indicating building lines, etc., within the following three months; (3) such schemes were to be prepared individually or in co-operation, submitted both to public inquiry and exhibition and to the Departmental Commission; (4) on failure to do this, the Departmental Commission could declare local authorities in default and prepare a scheme for them; (5) once a scheme had been prepared, certificates for erecting new buildings had to be obtained from the Mayor, otherwise the owners might be compelled to pull them down.

To deal with the question of land redevelopment, the "Zone Rouge" was clearly defined as (a) land considered as impossible ever to cultivate again; (b) land which would require at least five years to bring it under reasonable cultivation. This land was to be acquired by the State, who were to reinstate the soil, let at a rack-rent to tenants who would reinstate at their own cost, or instigate afforestation. The former owners refused to accept this ruling, and the greater part of the "Zone Rouge" was repeopled by its former inhabitants, who, incredibly, had restored the fertility by 1922. A few fine garden cities were built, but generally it was still possible completely to obstruct planning schemes. In addition, it was found that practically none of the inhabitants of the ruined villages would agree to any alteration in the size or shape of the plot which they owned, so that schemes had to be abandoned.

Financial difficulties were partly met by a scheme whereby the State bought up all the property in the area from the war damage claimants; the land was ceded to the town council, who sold, for a certain period, the new lots formed by the town planning scheme to the original claimants; these paid by assigning all or part of their war damage certificate to the local authorities, who then repaid to the State the

amount expended in the purchase of the whole area to be replanned.

The lack of preliminary plans influenced the whole course of reconstruction: (1) There was no system of priorities worked out, with a resulting ill-balance between industry, transport, housing and agriculture; (2) the idea of "planning" had not been accepted by the people, traditional modes died hard, and time was not spared to demonstrate the benefits which would result from long-term planning.

FAULTY RENDERING

CAUSES AND PREVENTION.

CEMENT renderings are a frequent source of trouble due to cracking or falling away from walls. It is doubtful whether the appearance of fine cracks, or crazing, can be entirely prevented, but best results can be avoided if the properties of the materials are better understood and the causes of the failures are known. Much of the inferior rendering is probably due to the fact that the plasterers who do the work treat Portland cement mortar in outdoor work in the same way as lime plaster for indoor work, whereas the materials and causes of failure are different.

The causes of the failure of renderings are as follows:—

(1) Settlement of the wall, with consequent cracking of the brickwork and of the rendering. Nothing the plasterer can do will prevent this type of failure.

(2) Insufficient key between the wall and the rendering. When it is remembered that the weight of ½-in. rendering is about 45 lb. per square yard it will be realised that a proper key is necessary if it is to hang vertically on a wall. It is common practice to rake out the joints to a depth of ½ in. or so and to depend upon the rendering being tucked into these joints to provide a key. In the case of old work it is also common to hack the brickwork. It is now considered better to point the joints with cement mortar flush with the brickwork, and to apply a spatterdash coat to the whole of the surface. A spatterdash key is formed by mixing 1½ parts of sharp sand and one part of cement to a stiff consistency and dashing it on the wall to provide a large number of small lumps of mortar adhering to the brickwork and projecting about ¼ in. This will provide a much better key than the joints between the bricks, because the lumps of mortar will be closer together than the brick joints.

The base coat must be well combed with wavy horizontal lines to provide a key for the finish coat.

(3) Excessive suction due to the porosity of the bricks can be remedied by thoroughly soaking the brickwork and leaving it until it is just damp before the spatterdash and first rendering coat are applied. It must be remembered that Portland cement hardens only in the presence of moisture, and that if the mixing water is quickly absorbed by the bricks the mortar will not harden properly and the rendering will have little strength.

(4) Inferior materials. The sand must be sharp and clean and well graded. Dirty and soft sands will make weak mortars.

(5) Too rich mixes lead to excessive cracking because the shrinkage of the cement on setting causes cracks. For the backing coat a mix of one part of cement to three parts of sand ¼ in. down is suitable. For the finishing coat the mix should be one part of cement to three parts sand ⅛ in. down with the addition of 8 per cent. of hydrated lime by weight of the cement; the lime will make the finish coat, which is usually ⅛ in. thick, more workable.

(6) Excessive trowelling brings cement and mortar to the surface. This robs the back of the work of some of its cement content and brings a film of neat cement to the surface. The rate of expansion and contraction of neat cement due to changes of temperature is greater than that of mortar, and the result is the formation of hair-cracks in the skin of neat cement on the face of the work. This separation of materials is aggravated if the mortar is too wet; the consistency of the mortar should be the stiffest that can be properly placed in position. Crazing will be less noticeable if the surface is left rough from a wood float, by scraping it with the edge of a trowel, or by going over it lightly with a soft brush.

(7) Cracking due to shrinkage during hardening of the mortar and to changes of temperature thereafter can only be avoided by dividing the rendering into small areas that will be able to move without serious cracking. This can be done by working to screeds fixed to the brickwork and dividing the wall into panels of a few square feet each. For the sake of appearance the wall should be panelled out so that the joints will not be unsightly. For example, joints should range with the wall openings, and the spaces between these openings divided into a symmetrical pattern. Alternate panels should be rendered first, and when these are hard and the screeds removed, the edges of the panels already placed should be given a wipe of mastic. The mastic will prevent the passage of rain through the joints, and, as it is elastic, it will allow the panels to "breathe." Scoring the rendering with lines in a symmetrical pattern also prevents unsightly cracks, because the rendering will be weakest where the lines occur, and this is where any cracks will appear and be less noticeable.

(8) Quick drying-out results in a weak mortar. If the work cannot be done in damp weather it should be kept damp for three or four days by spraying with water as soon as this can be done without damage. Alternatively, wet hessian may be hung against the work in very hot weather.

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L.M.B.A.

SOUTH-WESTERN AREA MEETING.

THE Autumn Area General Meeting of the South-Western Area of the London Master Builders' Association was held at the Hill Hotel, Wimbledon, on Wednesday, September 29, when MR. G. T. CROUCH presided over a good attendance.

Proposing the toast of "The Building Industry" at the luncheon, MR. T. WEBSTER, A.M.I.C.E., M.Inst.M. & Cy.E., the Borough Engineer of Wimbledon, said we were moving rapidly to another stage of civilised development, and he believed the key to our difficulties would be found in a true conception and acceptance of the fact that we were not here to enjoy our lives to the detriment of those round about us, but to make the whole social structure more comfortable for the general inhabitants of this country and the world. There was a tremendous job of work to be done after the war, and it would need all their efforts, the whole of the man-power in the industry, and all the brains directed by the best ideals, in order to lead it into the right channel. It was a glorious future for any industry. He was certain that the country could look to the building industry, and that it would not fail them.

MR. H. C. HARLAND, F.I.O.B., President of the London Master Builders' Association, responding, said:—

"One of the matters which we have been considering recently, and on which I have already been able to give some advice to the Government through the Ministry of Works, is the lack of work which would appear to be facing the industry through the early completion of the present programme of Government contracts.

"Everyone, including the Ministry of Works, the Ministry of Labour and the Ministry of Health, is looking to this industry to employ men on demobilisation. We will be the first of all the industries to get into our stride on a peace-time basis provided, first, that plans are ready, and secondly—and this is most important at this stage—that we have the staff and men necessary to kick off with.

"As your Administrative Committee see it, unless there is some programme arranged immediately to enable us to employ and keep our already seriously depleted staffs together, then all the peace-time programmes for a quick get-away for our industry are doomed to failure.

"This failure could not be put down to us. To the Government I say 'You have been warned. Act, and act now, if you want to retain and use us for the great post-war effort.'

"I throw out these suggestions: (1) Let local authorities, by collaboration with the Ministry of Health and in co-operation with the Ministry of Works, arrange an extensive programme for the repair and maintenance of all property within their areas for which they are responsible, such as, on a careful survey, it is decided in the national interest should be repaired. Contracts for this work should be let by local authorities to the industry. (2) Permit land and property owners to carry out arrears of maintenance which have been left in abeyance during these war years, without hindrance except in so far as licences may be necessary for the supply of timber required.

"The advantages of a programme on these lines would be: (1) The employment of the nucleus of building trade employees necessary for post-war work. (2) The getting rid of a long list of maintenance which must be carried out sooner or later, and which, if deferred until peace comes, would litter any programme of rebuilding. (3) The industry would be free to cope

with a much larger new building programme after the war.

"I have merely given a very brief outline of what could be arranged now for our mutual benefit and for the good of our fellow-men, both now and for post-war services. It is up to the Government to act or collaborate with us in the details of some such scheme."

MR. SIDNEY J. GAZE, Senior Vice-Chairman of the South-Western Area, proposed the toast of "Our Municipal Friends," stating that the best of feeling prevailed between the builders of the district and the surveyors of the local authorities.

Responding, MR. C. NEEDHAM, A.M.Inst.C.E., M.Inst.M. & Cy.E., Borough Engineer of Malden and Coombe, said that one of the first jobs after the war was the removal of the irksome restrictions which had been put on the building trade in wartime. There were bound to be some restrictions and a system of licensing, otherwise there would be chaos in the trade, but he hoped they would go to the Government and tell them when the time to remove restrictions had arrived. In Circular 2774, local authorities were instructed to prepare post-war housing plans on the basis of proposed developments prior to the war. That ran right across present-day developments of town planning. If they could get a lead where houses were to be built and factories sited, and be given the staff to do the job, they were as anxious as anybody to get on with it. He hoped the Government would make a pronouncement that they had adopted or turned down the Barlow Commission Report.

MR. A. J. CHAPMAN, J.P., Chairman of the Southern Area, proposed the toast of "The South-Western Area." That meeting, he said, proved that they were a progressive area with an energetic chairman. One thing he liked was the way in which he championed the cause of the small builder. The Area Associations gave them an opportunity of getting into close contact with London. Members felt they belonged to a real live association, and that they were in some measure responsible for running it, and had a definite part to play. They felt they could bring their problems and perplexities to the Area meeting, and could get the benefit, help, guidance and experience of their fellow-builders. After the war the industry should have a wonderful future, but unless they could get rid of some of the restrictions imposed by the Government he was afraid it stood a chance of being spoiled. They realised that, during the war, controls were necessary, and in the period after the war they would also be necessary. There were three main points: priority and controls of labour and material to certain extents. If they were properly organised they should be able to say to the Government of the day, "Tell us what you want done; leave us alone, and subject to these three things we will finish the job."

MR. G. T. CROUCH, Chairman of the South-Western Area, responded, and said that the Area had risen from 20 to 109 members. They were an area of medium and small builders, although they had their big builders, too. They were now on a very solid basis and were able to show that they had some strength behind them. He would like the President to feel he had their solid and loyal trust, and they would help him to the utmost of their power in any decision he had to make in the future.

The toast of "Our Guests" was proposed by MR. W. J. LACEY, Junior Vice-Chairman of the South-Western Area, and responded to by MR. E. W. GARRETT, Junior Vice-President of the L.M.B.A.

TECHNICIANS AT THE T.U.C.

A.B.T. RESOLUTIONS ADOPTED.

INTRODUCING a resolution at the recent Trades Union Congress, dealing with the Essential Work Order, the A.B.T. delegate, MRS. E. V. PENN, Acting General Secretary, urged that the term "serious misconduct" should be more precisely defined in order to prevent its unjustifiable use. It was clear from experience, she said, that employers often availed themselves in an entirely frivolous way of the clause allowing them to dismiss without permission of the National Service Officer in cases of "serious misconduct." Employees had been dismissed merely because they were disliked. In one instance she had represented at a Tribunal a man dismissed under this clause when the evidence against him turned out to be not of misconduct but of inefficiency. On her pointing this out, the Chairman indicated that such use of the term was normal! Other points in the Resolution were that decisions of Appeal Boards should be made known to appellants and their unions, and that the Minister of Labour should have power to enforce payment of salaries to the date on which permission for dismissal was given or the date of termination of notice, whichever was the later. The resolution was adopted.

A second A.B.T. resolution, which was passed unanimously, was as follows: "That this Congress, believing that the building industry must be developed as a social service, and that the great problems and tasks of post-war building must be dealt with in the interests of the people and not as a source of profit for vested interests, instructs the General Council to press the Government to declare that housing, schools and essential social services will receive the major allocation of resources in the post-war building programme and to prepare legislation forthwith to implement the Barlow, Scott, and Uthwatt Reports."

In proposing the resolution, Mrs. Penn said: "Every family should have a house or flat that is well built, of adequate floor area, at a reasonable rent, within easy reach of work, accessible to schools, shops, communal centres and nurseries, and surrounded by sufficient open space. Houses must be properly equipped, so that they are no longer sweat shops for housewives, and they must be built within the framework of correct town and country planning. In the post-war period we must be alert to see that housing, schools and essential services are dealt with before luxury building is permitted. We must ensure that the interests of the community as a whole are served and that building is carried out for the people of the country and not for the profit of banks, building societies, landowners, or monopolists in building materials.

"Speed is essential. Our men and women in the Forces, those who have been bombed out or transferred, are not going to be satisfied to wait eight, ten or fifteen years for a home. The Government should declare both a long-term and a short-term programme; dabbling in one-year plans is not good enough.

"Houses are needed at rents the working-class can afford. Can we tolerate the position where 20 to 30 per cent. of the income of the average working-class family goes in rent? The Beveridge Report estimated that this percentage rises to 35 per cent. for the poorest families. Rents could be kept down if costs were dealt with drastically.

"We can get what we want," she concluded, "if costs are properly considered; if building technique is rationalised; if the land question is dealt with in a realistic way; and if Local Authorities are soon informed of the powers they will have to site houses and acquire land."

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OFFICIAL NOTIFICATIONS

Bolts, Nuts, Screws, etc.

The Minister of Supply has made the Bolts, Nuts, Screws, Screw Studs, Washers and Rivets (No. 3) Order, 1943, which came into force on October 3. The Order varies the No. 1 Order, as amended by the No. 2 Order, by reducing the maximum prices for aircraft bolts, nuts and screws; prescribing maximum prices for sales of aircraft rivets by all classes of sellers; and by extending the price schedules for certain other types of bolts, nuts, set screws and studs, which at present apply only to sale by makers to cover sales by other classes of sellers. The basis of maximum prices of black bolts and nuts other than carriage bolts and nuts is changed from prices for the gross or hundredweight to prices for lots of one hundred, and a new weight conversion table is added to cover the calculations of the weight of black bolts and nuts sold in lots of one hundred.

Copies of the Order (S.R. & O. 1943, No. 1,301) can be obtained from His Majesty's Stationery Office, York House, Kingsway, W.C.2, or through any bookseller, price 1d.

Economy of Linseed Oil and Putty.

An Economy Memorandum Number 5 (Revised) supersedes E.M.5, page 28, of "The Standard of War-Time Building," published by His Majesty's Stationery Office for the Ministry of Works in May, 1943. The memorandum relates to the use of linseed oil and putty. All users of "The Standard of War-Time Building" should obtain a copy of E.M.5 (Revised) from: The Directorate of Building Programmes, Room 705, Ministry of Works, Lambeth Bridge House, London, S.E.1.

A Civil Engineer's Estate.

SIR HORACE LOUIS BOOT, M.Inst.C.E., M.I.Mech.E., M.I.E.E., of Maidenhead, left £390,947 (net personalty £367,258). He left the greater part of his fortune to charity.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 2nd APRIL, 1943

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.
Aberavon	2/0	1/7
Aberdare	2/0	1/7
Abergavenny	1/10½	1/5½
Abingdon	2/0	1/7
Accrington	1/8½	1/4½
Aldeburgh	1/10½	1/5½
Aldershot	2/0	1/7
Alfreton U.D.	1/11½	1/6½
Alnwick	2/0	1/7
Altrincham	1/11½	1/6½
Amble	1/10½	1/5½
Amersham	2/0	1/7
Ammanford	1/10	1/5½
Andover	1/10	1/5½
Ardingly	1/10	1/5½
Arundel	1/10	1/5½
Ascot		
Ashby-de-la-Zouch U.D.	2/0	1/7
Ashford (Kent)	1/10	1/5½
Ashford (Middlesex)	2/0	1/7
Ashington	1/11½	1/6½
Ashtead	2/0	1/7
Ashton-under-Lyne	2/0	1/7
Aylesbury	1/10	1/5½
Aylsham	1/9	1/4½
Bagshot	1/10	1/5½
Banbury	1/10	1/5½
Barnsley	2/0	1/7
Barnstaple	1/10	1/5½
Barrow-in-Furness	2/0	1/7
Barry	2/0	1/7
Basingstoke	1/10	1/5½
Bath	1/11½	1/6½
Batley	2/0	1/7
Beaconsfield	†1/10½	1/5½
Beccles	1/8½	1/4½
Bedford	1/11½	1/6½
Berkhamsted	1/10	1/5½
Berwick	1/11½	1/6½
Beverley	2/0	1/7
Bexhill	1/10½	1/5½
Bideford	1/10	1/5½
Biggleswade	1/10	1/5½
Billericay	1/9½	1/5
Birchington	1/10	1/5½
*Birkenhead	‡$2/1	¶
Birmingham C.B.	†2/0	†1/7
Bishop Auckland	2/0	1/7
Bishop's Stortford	1/11	1/6½
Blackburn	2/0	1/7
Blackpool	2/0	1/7
Blyth	2/0	1/7
Bognor Regis	1/10	1/5½
Bolton	2/0	1/7
Bournemouth	1/11	1/6½
Bracknell	1/10	1/5½
Bradford	2/0	1/7
Bradford-on-Avon	1/9	1/4½
Braintree	1/10	1/5½
Brentwood	1/11½	1/6½
Bridgwater	1/10½	1/5½
Bridlington	1/11½	1/6½
Brighouse	2/0	1/7
Brighton	1/11	1/6½
Bristol	2/0	1/7
Broadstairs	1/10	1/5½
Bromsgrove U.D.	1/11½	1/6½
Buckley	2/0	1/7
Bungay	1/8	1/4
Burnham-on-Crouch	1/8½	1/4½
Burnley	2/0	1/7
Burslem	2/0	1/7
Burton-on-Trent C.B.	2/0	1/7
Bury	2/0	1/7
Bury St. Edmunds	1/9½	1/5
Buxton	1/11½	1/6½
Byfleet	1/10½	1/5½
Cambridge	2/0	1/7
Canterbury	1/10	1/5½
Cardiff	2/0	1/7
Carlisle	2/0	1/7
Carnforth	2/0	1/7
Castleford	2/0	1/7
Caterham	1/9	1/4½
Chard	1/11	1/6½
Chatham	1/11½	1/6½
Chelmsford	1/11	1/6½
Cheltenham	1/11½	1/6½
Chepstow	1/11	1/6½
Chertsey	2/0	1/7
Chester	2/0	1/7
Chesterfield M.B.	1/10	1/5½
Chichester	2/0	1/7
Chorley	1/9½	1/5
Cirencester	1/10	1/5½
Clacton	2/0	1/7
Cleveleys	2/0	1/7
Clitheroe	2/0	1/7
Cobham (Surrey)	1/11	1/6½
Colchester	1/11½	1/6½
Colwyn Bay	1/11	1/6½
Congleton	1/11½	1/6½
Coventry C.B.	2/0	1/7
Cranbrook	1/10	1/5½
Cranleigh	1/10	1/5½
Crawley	1/10	1/5½
Crewe	1/11½	1/6½
Cromer	1/9	1/4½
Crowborough	1/10	1/5½
Cuckfield	1/10	1/5½
Darlington	2/0	1/7
Darwen	2/0	1/7
Daventry M.B.	1/10½	1/5½
Deal	1/10	1/5½
Denbigh Town	1/11	1/6½
Derby C.B.	2/0	1/7
Devizes	1/9	1/4½
Dewsbury	2/0	1/7
Didcot	1/10	1/5½
Diss	1/8½	1/4½
Doncaster	2/0	1/7
Dorchester	1/10½	1/5½
Dorking	1/10	1/5½
Dover	1/10	1/5½
Dovercourt	1/10	1/5½
Driffield	1/10½	1/5½
Droitwich M.B.	1/11½	1/6½
Dudley M.B.	2/0	1/7
Dunstable	1/10½	1/5½
Durham City	2/0	1/7
Eastbourne	1/11	1/6½
E. Glam. (Mon. Val.)	2/0	1/7
East Grinstead	1/10	1/5½
Edenbridge	1/10	1/5½
Ely	1/9	1/4½
Epping	2/0	1/7
Exeter	1/11½	1/6½
Exmouth	1/10½	1/5½
Fakenham	1/9	1/4½
Falmouth	1/10½	1/5½
Fareham	1/11	1/6½
Faversham	1/10	1/5½
Felixstowe	1/11	1/6½
Filey	1/10½	1/5½
Fleetwood	2/0	1/7
Flint	2/0	1/7
Folkestone	1/10	1/5½
Frinton-on-Sea	1/10	1/5½
Frome	1/9	1/4½
Gainsborough U.D.	1/11	1/6½
Gateshead	2/0	1/7
Gillingham (Kent)	1/11	1/6½
Glossop	2/0	1/7
Gloucester	1/11½	1/6½
Godalming	1/10	1/5½
Goole	2/0	1/7
Gosport	1/11½	1/6½
Grantham M.B.	1/11	1/6½
Gravesend	1/11½	1/6½
Great Yarmouth	1/10	1/5½
Grimsby	2/0	1/7
Guildford	1/10	1/5½
Guilsborough	1/10½	1/5½
Halifax	2/0	1/7
Hanley	2/0	1/7
Harpenden	1/11	1/6½
Harrogate	2/0	1/7
Hartlepools	2/0	1/7
Harwich	1/10	1/5½
Haslemere	1/10	1/5½
Hastings	1/10	1/5½
Hatfield	1/11½	1/6½
Haywards Heath	1/10	1/5½
Hednesford	1/11½	1/6½
Hemel Hempstead	1/11	1/6½
Henley-on-Thames	1/10	1/5½
Hereford	1/10	1/5½
Herne Bay	1/10	1/5½
Hertford	1/11½	1/6½
Heysham	2/0	1/7
Hitchin	1/11	1/6½
Hoddesdon	1/11½	1/6½
Holt (Norfolk)	1/8½	1/4½
Horley	1/10	1/5½
Horsham	1/10	1/5½
Horwich	2/0	1/7
Huddersfield	2/0	1/7
Hull	1/9	1/4½
Hunstanton	1/9½	1/5
Huntingdon		
Ilfracombe	1/10	1/5½
Ingatestone	1/10½	1/5½
Ipswich	1/11½	1/6½
Isle of Thanet	1/10	1/5½
Isle of Wight	1/9½	1/5
Keighley	2/0	1/7
Kenilworth	2/0	1/7
Kettering M.B.	2/0	1/7
Kidderminster M.B.	1/11½	1/6½
King's Lynn	1/10	1/5½
Kirkham	2/0	1/7
Knowle	1/1½	1/6½
Lancaster	2/0	1/7
Leamington M.B.	2/0	1/7
Leatherhead	1/11	1/6½
Leeds	2/0	1/7
Leicester C.B.	2/0	1/7
Leighton Buzzard	1/9	1/4½
Letchworth	1/11	1/6½
Lewes	1/10	1/5½
Lichfield M.B.	1/11	1/6½
Lincoln C.B.	2/0	1/7
Littlehampton	1/10	1/5½
*Liverpool	‡$2/1	¶
Llandudno	1/11	1/6½
Llanelly	2/0	1/7
London—		
12m. radius	2/1½	1/8
12-15m. radius	2/1	1/7½
Long Eaton U.D.	2/0	1/7
Longton	2/0	1/7
Loughborough M.B.	2/0	1/7
Louth M.B.	1/10½	1/5½
Lowestoft	1/10	1/5½
Luton	1/11½	1/6½
Macclesfield	1/11½	1/6½
Maidenhead	1/11	1/6½
Maidstone	1/10½	1/5½
Malvern U.D.	1/10½	1/5½
Manchester	2/0	1/7
Manningtree	1/9	1/4½
Mansfield M.B.	2/0	1/7
March	1/9	1/4½
Margate	1/10	1/5½
Market Harborough	1/11	1/6½
Matlock U.D.	1/10½	1/5½
Melton Constable	1/8½	1/4½
Melton Mowbray	1/11	1/6½
Merthyr	2/0	1/7
Middlesbrough	2/0	1/7
Middleton	2/0	1/7
Middlewich	1/11½	1/6½
Milford Haven	1/10½	1/5½
Morecambe	2/0	1/7
Morley	2/0	1/7
Mundesley	1/9	1/4½
Nantwich	1/11½	1/6½
Nelson	2/0	1/7
Newark-on-Trent	1/11½	1/6½
Newbury	1/10	1/5½
Newcastle-on-Tyne	2/0	1/7
Newcastle-u.-Lyme	2/0	1/7
New Forest	1/10	1/5½
Newmarket	1/10	1/5½
Newport, Mon.	2/0	1/7
Newport Pagnell	1/10	1/5½
Northampton C.B.	2/0	1/7
Norwich	2/0	1/7
Nottingham	2/0	1/7
Nuneaton	2/0	1/7
Oakham U.D.	1/10½	1/5½
Oldham	2/0	1/7
Ormskirk	2/0	1/7
Oxford	1/11½	1/6½
Oxted	1/10½	1/5½
Paignton	1/11½	1/6½
Peterborough (Borough)	1/11½	1/6½
Plymouth	2/0	1/7
Pontefract	2/0	1/7
Pontypridd	2/0	1/7
Port Talbot	2/0	1/7
Portsmouth	1/11½	1/6½
Preston	2/0	1/7
Pulborough	1/10	1/5½
Ramsgate	1/10	1/5½
Reading	1/11½	1/6½
Redditch U.D.	1/11½	1/6½
Redhill	1/10½	1/5½
Ripon	1/10½	1/5½
Rochdale	2/0	1/7
Rochester	1/11	1/6½
Rugby M.B.	2/0	1/7
St. Albans	1/11½	1/6½
St. Helens	2/0	1/7
St. Neots	1/9½	1/5
Saffron Walden	1/9	1/4½
Salisbury City	1/9½	1/5
Salisbury Plain	1/11*	1/6½
Sawbridgeworth	1/10½	1/5½
Saxmundham	1/8½	1/4½
Scarborough	1/11½	1/6½
Scunthorpe	2/0	1/7
Selby	2/0	1/7
Sevenoaks	1/10½	1/5½
Sheerness	1/10	1/5½
Sheffield	2/0	1/7
Shipley	2/0	1/7
Shoeburyness	1/11½	1/6½
Shoreham	1/11	1/6½
Shrewsbury M.B.	1/11½	1/6½
Sittingbourne	1/10	1/5½
Skegness U.D.	1/11	1/6½
Sleaford U.D.	1/10½	1/5½
Slough	1/11	1/6½
Smethwick	†2/0	†1/7
Southampton	1/11½	1/6½
Southend-on-Sea	1/11½	1/6½
Southport	2/0	1/7
South Shields	2/0	1/7
Spalding	1/10	1/5½
Stafford M.B.	1/11½	1/6½
Staines	1/11	1/6½
Stamford M.B.	1/11	1/6½
Stevenage	1/11	1/6½
Stockport	2/0	1/7
Stockton-on-Tees	2/0	1/7
Stoke-on-Trent C.B.	2/0	1/7
Stourbridge M.B.	2/0	1/7
Stourport U.D.	1/11½	1/6½
Stowmarket	1/9	1/4½
Stratford-on-Avon M.B.	1/11	1/6½
Stroud	1/11	1/6½
Sunderland	2/0	1/7
Sutton Coldfield M.B.	2/0	1/7
Swaffham	1/8½	1/4½
Swanage	1/10	1/5½
Swansea	2/0	1/7
Swindon	1/10½	1/5½
Tamworth M.B.	1/11½	1/6½
Taunton	1/10½	1/5½
Tenterden	1/10	1/5½
Thames Haven	2/0	1/7
Thetford	1/9½	1/5
Thorpe Bay	1/11½	1/6½
Todmorden	2/0	1/7
Tonbridge	1/10½	1/5½
Torquay	1/11½	1/6½
Totnes	1/10	1/5½
Trowbridge	1/9	1/4½
Truro	1/9½	1/5
Tunbridge Wells	1/10½	1/5½
Uppingham (Salop)	1/11½	1/6½
Uttoxeter U.D.	1/10½	1/5½
Wakefield	2/0	1/7
Walsall C.B.	2/0	1/7
Walsden	2/0	1/7
Walton-on-Naze	1/10	1/5½
Ware	1/11½	1/6½
Warminster	1/9	1/4½
Warrington	2/0	1/7
Warwick M.B.	2/0	1/7
Wellington R.D.	1/11½	1/6½
Welwyn	1/11	1/6½
Welwyn Gar. City	2/0	1/7
Wells (Norfolk)	1/8½	1/4½
West Bromwich C.B.	2/0	1/7
Westcliff-on-Sea	1/11½	1/6½
Weston-super-Mare	1/11	1/6½
Weybridge	1/11	1/6½
Weymouth	1/10	1/5½
Whitby	1/11	1/6½
Whitstable	1/10	1/5½
Widnes	2/0	1/7
Wigan	2/0	1/7
Wigton	1/10½	1/5½
Willington	2/0	1/7
Wilmslow	2/0	1/7
Winchester	1/10½	1/5½
Windermere	1/10½	1/5½
Windsor	1/11	1/6½
Wisbech	1/9½	1/5
Witham	1/10	1/5½
Woking	1/10½	1/5½
Wokingham	1/10	1/5½
Wolverhampton C.B.	2/0	1/7
Woodbridge	1/9½	1/5
Worcester C.B.	1/11½	1/6½
Workington	1/10½	1/5½
Worksop	1/11½	1/6½
Worthing	1/10	1/5½
Wrexham	1/11½	1/6½
Wroxham	1/9½	1/5
Wycombe	1/11	1/6½
Wymondham	1/9	1/4½
Yeovil	1/10½	1/5½
York	2/0	1/7

* An application for an increase of rates is under discussion.

† Plus 2d. per working day. ‡ Plasterers 2/1½. ¶ Tradesmen's Labourers, 1/7½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters, Joiners and Plumbers in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 302.

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials delivered to site. Prices for smaller quantities ex merchants' warehouse will of course be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery.

BRICKS, &c.

	£ s. d.
First Hard Stocks	4 13 0
Second Hard Stocks	4 6 0
Mild Stocks	3 13 0
Single Rough Stocks	3 7 0
Common Stocks	2 17 6

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job. *In addition*, there will be the Levy under the Bricks (Charges) Order, 1942, o 3s. per 1,000.

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross Station per 1,000 s. d.	To sites in W.C. District per 1,000 s. d.
Pressed	56 9	63 3
Keyed	58 9	65 3
Single Bullnose	76 9	83 3
Rustics	76 9	83 3
Whites	77 3	83 3

White Midhurst Best selected (delivered London site)	£ s. d. 5 10 0
Best blue Pressed Staffs. (London Stns.)	11 12 0
Do. Bullnose (London Stns.)	12 2 0
Blue Wire Cuts (London Stns.)	10 9 6

Best Stourbridge Fire Brick (London Stns.) :—

	£ s. d.		£ s. d.
2½ in.	10 0 0	3 in.	12 0 0

GLAZED BRICKS (London Stns.).

Best White Ivory and Salt Glazed	38 10 0	D'ble Str'tch'rs D'ble Headers	35 10 0
Stretcher	30 0 0	One side&twoends	39 10 0
Headers	29 10 0	Twosides&one end	40 10 0
Quoins, Bullnose and 4½in. Flats	36 10 0	Splays and Squints	38 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

ADD LEVY ON BRICKS. 3/- per 1,000 except Glazed Bricks.

PARTITION SLABS.

Delivered on site London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

	s. d.		s. d.
2" per yd. sup.	2 8	3" per yd. sup.	3 6
2½" " " ..	2 11	4" " " ..	3 10

CLINKER CONCRETE.

2" per yd. sup.	1 11	3" per yd. sup.	2 6
2½" " " ..	2 3	4" " " ..	3 6

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 8
Size 12 x 9 x 2½" " "	2 11
Size 12 x 9 x 3" " "	3 6
Size 12 x 9 x 4" " "	3 10

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 8	12" x 9" x 3"	3 6
12" x 9" x 2½"	2 11	12" x 9" x 4"	3 10

Per yard super d/d. Free on site, London.

Plus 2d. for smooth one side, and 4d. for smooth both sides.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	3 3½
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R. .... per ft. cube	4 7
Do. do. delivered on road waggons as above stations ..... per ft. cub.	4 7
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10ft. and over P.ft.cb.	s. d. 13 2
Sawn two sides	26 11
Sawn three or four sides	31 11
YORK STONE, BLUE—*Robin Hood Quality* Delivered at any Goods Station, London. 6 in. sawn two sides landings to sizes (under 30 ft. super) ..... per ft. super	5 6
6 in. rubbed two sides, ditto .. "	6 3
3 in. sawn two sides slabs (random sizes) ..... "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) .... "	1 8½
1½ in. to 2 in. ditto ..... "	1 4½
HARD YORK— Delivered at any Goods Station, London. Scrappled random blocks.....per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) .....per ft. super	5 7½
6 in. rubbed two sides, ditto .. "	6 9
4 in. sawn two sides slabs (random sizes) ..... "	3 5
3 in. ditto ditto ..... "	2 8
2 in. self-faced random flags .... per yd. super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube : Plain, 7s. 6d. Moulded, 8s. 6d.

Small section cills and copings, 11s.

SAND.

Thames Ballast	11s. 6d. per yd.	delivered 2 miles radius Paddington
Pit Ballast	10s. 0d. " "	
Pit Sand	12s. 0d. " "	
Washed Sand	13s. 0d. " "	
½ in. Shingle	10s. 6d. " "	
½ in. Broken Brick	16s. 0d. " "	
Pan Breeze	10s. 0d. " "	

CEMENT.

Best British Portland Cement. Standard Specification, delivered London area.	£ s. d.
6 ton loads and upwards site ..... per ton	2 11 0
1 ton to 6 tons site	2 14 0
Alongside Vauxhall in 80 ton lots	2 8 6
" Ferrocrete " Rapid Hardening Cement— 6 ton loads and upwards site	2 17 0
1 ton to 6 tons site	3 0 0
Alongside Vauxhall in 80 ton lots	2 14 6
" Aquacrete " Water Repellent, " Blue Circle " cement, 30s. per ton on ordinary " Blue Circle " prices.	
" Colorcrete " Nos. 1 and 2. Coloured rapid Hardening Portland Cement in 6 ton lots	4 11 0
" Colorcrete " not rapid hardening, according to colour, from £7 to £15 10s. per ton.	
" Snowcrete " White Portland Cement (in free paper bags) 11	5 0
Under one ton .. .. .. per cwt.	0 13 2
" 417 " Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 tons lots and upwards	3 11 0
Plus packages at current prices.	
Super Cement (Waterproof), bags extra....	4 1 0

NOTE.—Jute sacks charged at 35s. 6d. nett per ton (20 sacks) for quantities of or exceeding one ton. Less than one ton 1s. 9½d. nett each.

Credit 1s. 6d. nett each when returned in good condition within two weeks.

	£ s. d.		£ s. d.
Roman Cement	8 10 0	Keene's Cement, White	7 0 0
Parian Cement	7 0 0	" " Pink	6 10 0

Cementone Colours for cement according to tints per cwt. from £3 5s. 0d.

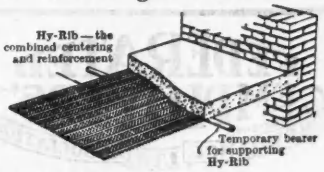
SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station.

Per 1,000 actual.	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		

HY-RIB is the answer to your centering problem

Use the reinforcing steel as centering for the slabs



HY-RIB is a centering for concrete during construction

HY-RIB is a reinforcement for the structural slab

Over 11,000,000 square feet of HY-RIB combined centering and reinforcement has been used in wartime buildings

For the guidance of Constructional Staffs we provide working drawings for particular applications of Hy-Rib.

HY-RIB
COMBINED CENTERING AND REINFORCEMENT

HY-RIB SALES, 6 COLLINGHAM GARDENS
EARLS COURT, S.W.5. 'PHONE: FROBISHER 8141

An advertisement of The Trussed Concrete Steel Co. Ltd.
4-526A

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink ..	4 2 6	Sirapite, Coarse	4 8 6
" White	4 10 0	" Finish	4 14 6
Pioneer	5 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue		Grey Stone Lime	3 1 0
Lias Lime	3 7 6	Chalk Lime	3 1 0
Granite Chippings	1 15 0	Hair per cwt. ..	3 15 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12s. 6d. in 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons	Per 1,000 f.o.r. London.
Best machine-made tiles from Broseley or Staffordshire district	£5 18 0
Ditto hand-made ditto	7 2 0
Ornamental ditto	7 8 6
Hip and valley tiles { Hand-made	14 6
(per dozen) { Machine-made.....	13 10

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality	s. d.		Foot cube. £ s. d.
Dry English Wainscot Billets	16 0	to	0 18 0
Dry Slavonian Billet Wainscot ..	17 0	to	1 0 0
Dry Cuba Mahogany logs.....	21 0	to	1 4 0
Square-edged Honduras Mahogany	....		0 16 6
Log Cut Honduras Mahogany			0 17 6
American Figured Oak			0 13 0
American Plain Oak.....			0 12 6
Jap, Figured Oak			0 13 0
Jap, Plain Oak			0 12 6
Teak			0 15 6
American Whitewood			0 12 6
African Whitewood			0 8 0
African Mahogany			0 11 0
Australian Walnut			0 19 0
Australian Silky Oak			0 12 6
Best Scotch glue.....		per cwt.	5 0 0
Liquid glue.....		per gallon	1 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes 2 in. by 3 in. to 4 in. by 11 in.	47 0 0	58 0 0

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	71 0 0

	Per square. s. d.
1 in. plain edge flooring	56 3
1¼ in. ditto	70 6
1 in. tongued and grooved	56 3
1¼ in. ditto	70 6

MATCHING

	Per square. s. d.
⅜ in.	40 0
½ in.	45 3
1 in.	59 0

PLUMBERS' BRASS WORK.

Delivered in London.

M.O.H.

S.D. BIBCOCKS CRUTCH HEAD, FOR IRON

½ in.	¾ in.
33/-	51/- per doz.

TOILET BIB COCKS FOR IRON.

½ in.	¾ in.
42/-	60/- per doz.

S.D. STOP COCKS FOR IRON.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
33/-	48/-	86/-	209/-	281/-	456/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
45/-	77/6	123/-	240/-	372/-	624/- per doz.

DOUBLE NUT BOILER SCREWS.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
5/6	6/8	11/-	24/-	36/-	56/- per doz.

HEAVY CROYDON BALL VALVES.

¼ in.	⅜ in.	1 in.	1¼ in.	1¼ in.	
60/-	96/-	120/-	240/-	320/-	per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
11/9	15/6	21/6	37/9	54/-	59/6 per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.	
10/9	13/6	25/-	37/-	46/-	per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½×6 lbs.	1½×6 lbs.	2×7 lbs.	3×7 lbs.	
Lead P.	26/-	34/-	55/-	92/-	per doz.
Lead S.	34/-	41/-	67/-	115/-	per doz.

SOLDER.—Plumbers', 1/6. Tinmen's, 1/11. Blow pipe, 2/3 per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—*(contd.)*

See Note at top of preceding page.

METALS.

JOISTS, GIRDERS, &c., to LONDON STATION PER TON—

	£	s.	d.
R.S. Joists, cut and fitted	£24	0	0
Plain Compound Girders	26	10	0
" " Stanchions	29	0	0
In Roof Work	35	0	0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	23	5	0	½ in.	21	15	0
⅜ in.	22	15	0	⅝ in. to 2¾ in.	21	5	0
½ in.	22	5	0				

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½% gross.

10/17

	Tubes. ½"/6" %	Tubulars, and ⅝"/6" %	19/24" %	¾"/2" %	Flanges. 2½"/6" %
Light weigh:	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv. lightweight	40½	—	38½	39½	48½
Galv. heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ½"/⅜" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works, per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/5½	1/2½	4½d.
3½ in.	1/7	1/4	4½d.
4 in.	1/7	1/6	6½d.
4½ in.	1/8½	1/8½	7½d.
5 in.	2/0½	2/0	9d.

O.C. GUTTERS.

3 in.	1/10½	1/7½	5d.
3½ in.	2/1½	1/7½	6½d.
4 in.	2/1½	1/8½	7½d.
4½ in.	2/2½	1/11½	8½d.
5 in.	2/8½	2/3	10½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Stock angles.	Branches.
2 in.	2/2½	1/5½	2/2
2½ in.	2/3½	1/8½	2/7½
3 in.	2/8½	2/1½	3/2
3½ in.	3/2½	2/6½	3/7½
4 in.	3/8½	3/0½	4/5

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches
2 in.	3/9½	2/7½	3/2
2½ in.	4/5	2/10½	3/11½
3 in.	4/9	3/2	4/8½
3½ in.	4/10½	3/11½	5/5½
4 in.	5/3½	4/5	6/3½

L.C.C. COATED DRAIN PIPE.

	cwt. qr. lbs. in 9 fts.	per yard.	Bends.	Branches.
3 in.	0 3 14	5/10	6/11	11/–
4 in.	1 1 20	7/11	7/11	13/10
5 in.	1 2 22	10/1	14/2	21/5
6 in.	2 0 6	12/3	16/4	28/4

Gaskin, 75/- per cwt.

	Per ton basis in London. £	s.	d.
IRON.—Staffordshire Crown, Merchant quality	18	7	6
IRON.—Staffordshire Marked Bars	19	7	6
Mild Steel Bars	19	15	0
Mild Steel Hoops	21	10	0
	Ex Merchant's Stock, per ton (two-ton lots).		
Soft Steel Sheets, C.R. and C.A.—			
20 gauge	24	17	6
24 gauge	25	2	6
26 gauge	25	17	6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20 gauge	27	0	0
24 gauge	27	10	0
26 gauge	28	15	0
Galvanised Flat Sheets, C.R. and C.A.—			
20 gauge	28	10	0
24 gauge	29	0	0
26 gauge	30	5	0
	Per ton £	s.	d.
Cut Nails, 3 in. and up	28	10	0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 2s. 4d. to 2s. 7d. per foot super.

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil (5 galls.) .. per gallon	0	6	3
Boiled Linseed Oil (5 galls.) .... "	0	6	7
Genuine Ground English White Lead, per cwt.	3	11	9
Genuine White Lead Paint, 14-lb. tins free, per cwt.	4	16	6
Genuine Red Lead "	2	18	6
Linseed Oil Putty (Kegs extra) .. "	1	3	9
Size, XD quality .... ftn.	0	4	9

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards.

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from May 10. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B	B1
Craftsmen	2/0½	2/0	1/11½	1/11	1/10½	1/10
Labourers	1/7	1/6¾	1/6½	1/6	1/5½	1/5½

Aberdeen .....A	Dumfriesshire A2	Inverness.....*	Perthshire A2
Ayrshire .....A	Dundee .....A	Inverurie A1	Peterhead A1
Banff .....B	Dunoon .....A	Kincardineshire ..A2	Renfrewshire .....A
Berwickshire A2	East Fife.....A	Kinross-shire .....A	Rothesay .....A
Bridge of Allan ....A	East Lothian .....A	Lanarkshire .....A	Roxburghshire A2
Broughty Ferry ....A	Edinburgh .....A	Midlothian .....A	St. Andrews .....A
Clackmannanshire..A	Fifeshire .....A	Monifieth .....A	Selkirkshire A2
Doune.....A	Forfarshire A2	Moray and Nairn B	Stewartry A2
Dunblane .....A	Glasgow .....A	Newport .....A	Stirlingshire .....A
Dumbartonshire ..A	Greenock .....A	Peeblesshire A2	Stornoway A2
Dumfries A1	Hamilton .....A	Perth .....A	Tayport .....A
			West Lothian .....A

*This town has its own rates : Masons, 1/9½; Carpenters, 1/9½ ; Slaters, 1/9½ ; Plumbers, 1/10; Plasterers, 1/10½ but 1/11 is paid owing to the scarcity at present ; Painters, 1/9½ and Labourers, 1/5.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 300

VARNISHES, &c.

		Per gallon. £	s.	d.
Oak Varnish	Outside	0	16	0
Fine do.	"	0	18	0
Fine Copal	"	1	0	0
Pale Copal	"	1	2	0
Pale Opal Carriage	"	1	6	0
Best do. do.	"	1	14	0
Floor Varnish	Inside	1	0	0
Fine Pale Paper	"	1	0	0
Fine Copal Cabinet	"	1	4	0
Fine Copal Flatting	"	1	2	0
Hard Drying Oak	"	1	0	0
Fine Hard Drying Oak	"	1	1	6
Fine Copal Varnish	"	1	2	6
Pale do.	"	1	14	0
Best do.	"	1	4	6
Best Japan Gold Size	"	1	14	6
Best Black Japan		0	12	0
Oak and Mahogany Stain (water)		0	14	0
Brunswick Black		0	9	6
Berlin Black		0	16	0
Knotting (patent)		0	17	0
French and Brush Polish		0	14	0
Liquid Dryers in Terebene		0	11	0

LEAD, &c.

(Delivered in London.)	Per ton. £	s.	d.
LEAD.—Sheet, English, 4 lb. and up	38	0	0
Pipe in coils	38	10	0
Soil pipe	42	10	0
Compo pipe	47	10	0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills.....per ton } £18 0 0.

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London Office:

23, Lawrence Lane, Cheapside, London, E.C.2

THE SCOTTISH BUILDER

NEW BUILDINGS

AIRDRIE.—Plans prepared for alterations and extensions for houses at Stirling-rd., Riggend, for which the architect is John Hall, 1, Soutar House-rd., Coatbridge.

GLASGOW.—Plans in hand for new building, for which the architects are M. MacDonald & Sons, Millroad-rd., Glasgow.—Plans prepared for alterations and additions at police offices, for which the architect is Robert Bruce, Municipal-bldgs., George-sq., Glasgow.

LANARKSHIRE.—Plans prepared for alterations and additions, including new clubhouse for the Miners' Welfare Institute, for which the architect is Mr. Alexander Girdwood, 10, Green Knowe-st., Overtown, Airdrie.

Builders to Entertain the Lord Mayor.

THE Lord Mayor, Sir Samuel Joseph, F.I.O.B., is to be the guest of honour of the Council of the London Master Builders' Association at a luncheon in the Savoy Hotel on Friday, October 29. The Lord Mayor is himself a member of the London Master Builders' Association.

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY CUT SIZES.

	Per ft. super. d.
18 oz.	3½
24 oz. Clear or "R" quality	4½
26 oz.	5½
32 oz.	7½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼ in.	5½d.
Rough cast double rolled, ⅜ in.	6½d.
Rough cast double rolled, ½ in.	6½d.
Figured rolled, and Cathedral, white	6½d.
Figured rolled and Cathedral, tinted	9½d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	10½d.

Rolled plate is the same price as rough cast double rolled.

	Per ft. s.	d.
Wire Rolled, ¼ in. thick	0	9½
Wire Cast, ¼ in. thick	0	9½
Georgian Wired Cast	0	10
"Calorex" Sheet, 21 oz.	2	6
" " 32 oz.	4	0
" Cast, ¼ in. thick	0	9½
" " ⅜ in. thick	1	0
" " ½ in. thick	1	2
Non Actinic Glass, ¼ in. thick	0	9½
" " ⅜ in. thick	1	0
" " ½ in. thick	1	2

"VITA" GLASS.

	Per ft. s.	d.
"Vita" Plate Glass, about ⅛ in. thick— To 7 ft. super	5	0
Over 7 ft. super	7	6
"Vita" Sheet Glass, about 18/20 oz.	2	0
Cathedral "Vita" Glass : ¼ in. thickness	2	0
⅜ in. "	3	0
⅛ in. Georgian Wired "Vita" Glass	3	6

GLASS BRICKS.

	s.	d.	
P.B. 1—8 in. × 4⅞ in. × 3⅞ in.	2	9	each nett
P.B. 2—5¾ in. × 5¾ in. × 3⅞ in.	2	6	"
P.B. 3—7¾ in. × 7¾ in. × 3⅞ in.	3	6	"
P.B. 32—7¾ in. × 7¾ in. × 3⅞ in.	3	6	"

Radiused Corner Bricks to match up with—

P.B. 2	4	6	each nett
P.B. 3	6	0	"
P.B. 32	6	0	"

FUTURE CONSTRUCTION

The Editor welcomes authentic information for this section from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

OCTOBER 12.

Truro T.C.—Temporary fire station. F. A. Baines, City E., Municipal Offices.

OCTOBER 13.

Croydon C.B.—Strengthening public basement shelters at George-st. and North End. B.E. Dep. £1 1s.

Lancaster T.C.—Erecting extension to Ryelands Park nursery. City E.'s Office, Town Hall.

OCTOBER 14.

Liverpool T.C. — Construction of general building work and ash bunker. W. H. Baines, T.C. Dep. £3 3s.

OCTOBER 16.

Birkenhead T.C.—Erection of new police substation. Boro E. and S., Town Hall.

Bradford T.C.—Construction of memorial hall at Crematorium, City A., Town Hall.

Gillingham (Kent) T.C.—Repair of house. Boro E. and S., Municipal Buildings. Dep. £1 1s.

OCTOBER 18.

Montgomery County E.C.—For structural alterations to form kitchen at Wellington school canteen. T. Gln Davies, D. of E., County Ed. Offices, Newtown. Dep. £2 2s.

Rochdale C.B.—(1) Reconstruction of roof over workshops; (2) Construction of latrines at Cleansing Dept., Entwisle-rd. B.S.

Rochford R.D.C.—Erection of 2 cottages at Hockley and 6 at Canewdon. A. N. Box, E. and S., Council Offices, Rochford, Essex.

OCTOBER 19.

Carlow U.D.C.—Two public conveniences in concrete. N. O'Dwyer, 6, Burlington-road, Dublin, council's consulting engineer. Dep. £1 1s.

OCTOBER 20.

Chelmsford T.C.—Erection of 6 surface shelters at Trinity-road school and 2 at Victoria schools. V. J. Willis, Boro E. and S. Dep. £2 2s.

OCTOBER 23.

Belfast Harbour Commissioners.—Erection of public lavatory. Major J. H. A. Patton, harbour engineer, Harbour Office, Belfast.

PAINTING, ELECTRIC LIGHTING, HEATING, ETC.

OCTOBER 16.

Audenshaw U.D.C.—External painting of 24 houses at Wellington-st. estate. C., Council Offices, Ryecroft Hall, Audenshaw.

OCTOBER 18.

Blackpool T.C.—Exterior painting of municipal houses. Boro S., Municipal Buildings.

ENGINEERING, IRON AND STEEL

OCTOBER 15.

Flaxton R.D.C.—Provision and laying of 65 yds. of concrete tube and 15 yds. of c-i sewer. Fairbank & Son, Barclays Bank Chambers, York.

OCTOBER 20.

Croydon C.B.—Fabricated steel frames for strengthening public basement shelters. Boro E., Town Hall. Dep. £1 1s.

Halstead (Essex) R.D.C.—Sinking of a bore and fixing a pump. G. F. Dearman, Council Offices, Halstead, Essex.

OCTOBER 21.

Helmsley R.D.C.—Construction of concrete weir and other building and water works. C. France, Clerk, Council Offices, Helmsley, Yorks.

OCTOBER 25.

Matlock U.D.C.—Exploitation of Blackbrook springs and laying of 350 yds. of spun-iron piping. W. H. Radford & Son, Albion-chmbrs., Nottingham. Dep. £2 2s.

ROAD, SEWERAGE AND WATER WORKS

OCTOBER 13.

Malmesbury R.D.C.—Construction of 530 yds. of 6-in. stoneware sewerage. R. S. Pierce, S., 10, High-street.

OCTOBER 20.

Hepton R.D.C.—Laying 150 yds. of sewer. H. Wilkinson, District Bank Chambers, Hebden Bridge.

OCTOBER 28.

Wood Green T.C.—Street improvement in three roads, including 13,930 yds. of 8-in. concrete raft. B.E., Town Hall, N.22. Dep. £1 1s.

Manchester T.C.—Making up Factory-lane. City E., Town Hall. Dep. £1 1s.

PUBLIC APPOINTMENTS

OCTOBER 14.

***Penzance T.C.**—Temporary Architectural and Surveying Assistant. D. J. Beattie, T.C., Municipal-bldgs.

OCTOBER 16.

***Leeds E.C.**—Full-time teacher or instructor required in Building Department to teach building construction and geometry and either woodwork or plumbing. Forms from Director of Education, Education Offices, Leeds, 1.

Swansea C.B.—Appointment for Boro. Engineer and Surveyor. T. B. Bowen, T.C., The Guild-Hall.

OCTOBER 23.

***Derbyshire E.C.**—Full-time post of Lecturer in Building Subjects. H. Kenneth Pickles, Clerk to Governors, Chesterfield Technical College, Infirmary-road, Chesterfield.

BRITISH RESTAURANTS AND CANTEENS

Bilston.—E.C. making application to B.E. for erection of two school kitchens at Bridge-st. Plans by A. F. B. Sidwick, B.S.

Bromsgrove.—R.D.C. approved school kitchen at Beoley school for Worcestershire E.C. Plans by Henry Rowe & Son, County Architects, 38, Foregate-st., Worcester.

Cheltenham.—T.C. propose B.R. at College-rd. Plans by G. Gould Marsland, B.S.

Durham.—C.E.C. propose to set up cooking centre at Eldon. Plans by F. Willey, Education Architect, 34, Old Elvet, Durham.

Holytown.—Plans prepared for canteen for Thankerton Collier Co., for which the architects are Cowie & Miller, 45, Cleland-rd., Wishaw, Motherwell.

Lancashire.—E.C. propose school canteen at Penwortham. Plans by L. Evans, County-bldgs., Fishergate-hill, Preston.

Leeds.—E.C. propose prefabricated building for school kitchen at Stainbeck-la. Plans by W. S. Cameron, City E.

Matlock.—Derbyshire E.C. propose school kitchen at Bakewell-rd. motor-car park. Plans by J. Harrison (A.), County Architect, County-bldgs., St. Mary's-gate, Derby.

New Mills (Derbyshire).—Goyt Mills Manufacturing Co., Ltd., propose canteen.

North Riding.—E.C. to erect dining centres at Yarm and Normanby. Plans by County Architect, County Hall, Northallerton.

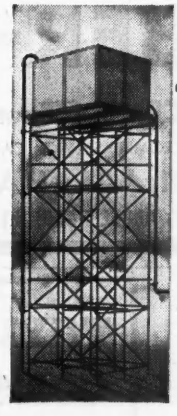
Northumberland.—C.C. received sanction to erect kitchen at Shilbottle school, at £693.

Shrewsbury.—E.C. propose prefabricated building for school kitchen at Harlescott schools. Plans by A. W. Ward, B.S.

Skipton.—West Riding E.C. submitted scheme to B.E. for extension of the school meals services. Plans by A. Booth (A.), County Architect, County Hall, Wakefield.

South Shields.—E.C. propose two more central kitchens under school meals plan.

Tynemouth.—T.C. propose alterations at Jubilee Restaurant, at £1,102. Plans by D. M. O'Herlihy, 19, Howard-st., North Shields, B.E.



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GENERAL BUILDING WORK

Amble.—Sanction is being sought for rebuilding of cinema. Plans by P. L. Browne, Son & Harding, Newcastle-on-Tyne.

Brighouse.—T.C. propose repairs to roof of public baths.—T.C. to acquire Waring Green church and Sunday-school for use for educational purposes.

Bromsgrove.—R.D.C. approved: Additions to farm outbuildings and dairy, Brookfields Farm, Belbroughton, for F. Nicholls, Brookfields; alterations to farm outbuildings and dairy, Bay Tree Farm, Wythall, for H. D. Barley.

Conway.—R.D.C. approved assembly rooms at Dolgarrog for Committee.

Harrogate.—T.C. propose infants' welfare centre and school clinic.

Jarrow-on-Tyne.—B. of E. approved remodelling out-offices at Croft-ter. school, at £820.—M.H. approved provision of second nursery.

Kidderminster.—T.C. considering provision of day nurseries.

Leeds.—E.C. to erect prefabricated hut at Cookridge Temporary school, at £1,030.

Longbenton.—Vicarage to be converted into orphanage for boys by Northern Counties Orphanage, Newcastle-on-Tyne.

New Mills (Derbyshire).—Walker & Homfray, Ltd., Woodside Brewery, Eccles New-rd., Salford 5, propose structural alterations and additions to "Squirrel Inn," Buxton-rd., Newtown.

Redditch.—U.D.C. propose additional nursery.

South Shields.—L. J. Couves & Partners, Newcastle-on-Tyne, prepared plans for stores, offices, lavatory accommodation and first-aid decontamination centre.—Marshall, Tweedy & Bourn, Grainger House, Blackett-st., Newcastle-on-Tyne, are architects for extending boiler-house.

Tynemouth.—E.C. to carry out repairs to St. Cuthbert's and St. Joseph's R.C. schools, at £675.—T.C. propose extending nursery at Lovaine-pl.

Warrington.—E.C. propose provision of orthopædic clinic for school children at Borough hospital.

West Heath.—Worcestershire E.C. to erect prefabricated building for extensions to school. Plans by H. Rowe & Son, County Architects, 38, Foregate-st., Worcester.

A.R.P. SCHEMES

PROVINCIAL.

Brighouse. — T.C. received approval of Ministry of Home Security to proposed structural alterations and equipment of premises for conversion into fire guard headquarters. Plans by H. A. Sneezum, B.E., Commercial-st.

Oldham.—T.C. accepted tender of James Hartley, Cobden-st., Chadderton, nr. Oldham, for erection of fire station. Plans by G. E. Hardy, B.E., 75, Union-st.

Sale.—J. Paley Parrish (L.), "Woodgarth," 30, Broad-rd., is architect for erection of garages, small control room and alterations to existing premises for N.F.S.

South Shields.—E.C. placed contract with Henderson Bros., South Shields, at £1,286, for erection of shelters at Ocean-rd. Senior Girls' school.

TENDERS

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government departments*.

Bolton.—Additions to works. H. Greenhalgh, 15, Mawdsley-st., architect: *R. G. Hirst & Son, Steele-st., Bolton.

Gateshead.—Erection of two nurseries, for T.C. The Shuttles: *Wm. Hall, Ltd., Gateshead, £3,714; Old Fold recreation ground: *A. V. Clerey & Son, Sunderland, £3,772.

¶**London (Air Ministry).**—List of new contracts to the value of £500 or over for week ended October 2.

Civil engineering work: Hadsphaltic Construction Co., Ltd., Wellington, Salop; John Laing & Son, Ltd., London, N.W.7; Farrans, Ltd., Belfast.

Heating work: Norris Warming Co., Ltd., London, W.C.1.

General maintenance work: Jas. Longley & Co., Ltd., Crawley, Sussex; J. L. Rawsthorne & Co., Speke, Liverpool; Henry Ashton & Son, Barton-on-Humber.

¶**London (Ministry of Works).**—Contracts placed by M.O.W. during week ending September 30:—

Cornwall: Building work, Wm. Smith & Son, Bodmin-rd., St. Austell, Cornwall; Kerswill & Sons, Taylor's-sq., Tavistock.

Devon: Building work, A. Nott, 33, Peter-st., Tiverton, Devon.

Dumfriesshire: Building work, Hepburn Bros., Ltd., Alva-st., Edinburgh.

Somerset: Civil engineering, Stansell & Son (Taunton), Ltd., Billet-st., Taunton.
Yorks: Building work, Yorkshire Builders, Ltd., Prospect Works, Leeds-rd., Otley, Yorks.

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***London (War Dept.).**—Works contracts placed by War Dept. for week ended September 25:—

Renfrewshire: Miscellaneous work, James McGlashan & Sons, Ltd., Glasgow, S.E.

Cumberland: Miscellaneous work, John Turner & Sons (Preston), Ltd., Preston, Lancs.

Co. Durham: Concrete work, G. Dougill & Sons, Ltd., Darlington.

Lancs: Miscellaneous work, Richard Parker, Catterall, Nr. Preston, Lancs.

Northamptonshire: Miscellaneous work, R. Marriott, Rushden, Northants.

Oxfordshire: Painting work, Fields, Ltd., Reading.

London, N.W.: Miscellaneous work, Brown & Langford, Ltd., Ickenham, Middx.

Sussex: Miscellaneous work, Hoad & Taylor, Ltd., Horsham; F. W. Honour & Sons, Ltd., E. Grinstead.

Manchester.—Conversion of premises into works canteen: *F. W. Bates & Sons, 72, Wilmslow-rd., Rusholme, Manchester 14.

Manchester.—Adaptations at Embden-st. day nursery, for P.H.C.: *A. Hodkinson, Ltd., Manchester.

Newton Abbot.—Erection of four houses, for R.D.C.: ‡Cumbley & Sons, Kingsteignton, £1,675 (subject to M.H. approval).

Northumberland.—Conversion of workshops into canteen at Amble P.I. centre, for C.C.: *R. & G. Brown, Amble, £625.

Tynemouth.—Erection of office and store, for R. Graham: *Chisholm & Co., Upper Reed-st., North Shields.

West Riding. — Structural alterations at Infants' school, Steeton, for conversion into school kitchen, for E.C. A. Booth (A.), County Architect, County Hall, Wakefield: *H. V. Robinson, Ltd., Alice-st., Keighley, £480.

NEW COMPANIES

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2. from the documents available at the Companies Registry.

Geo. F. Heath (Liverpool), Ltd. (382034).—Regd August 3. 148, Islington, Liverpool 3. Bldrs. and contractors, etc. Nom. cap.: £2,000. Dirs.: G. F. Heath, G. P. Heath, and Elsie Richardson.

W. O. Nicklen and Co., Ltd. (382441).—Regd. August 28. 3-4, Staple Inn, Holborn, W.C.1. Bldrs., bldrs.' mchts, etc. Nom. cap.: £100. Dirs.: W. O. Nicklen and Irene F. Phipps.

London and Suburban Decorating Co., Ltd. (382372).—Regd. August 25. Thornton House, Finsbury-sq., E.C. Nom. cap.: £1,000 in £1 shares.

D. J. Wagner (Contractors), Ltd. (382033).—Regd. August 3. Neville House, Waterloo-st., Birmingham, 2. Contractors, bldrs., etc. Nom. cap., £1,000. Dirs.: D. J. Wagner, D. Cleiford.

E. W. Allen (Wood Green), Ltd. (382112).—Regd. August 7. 154, Boundary-rd., N.22. Bldrs., etc. Nom. cap.: £100. Dirs. E. W. Allen and Maud Allen, 154, Boundary-rd., N.22.

Timber Buildings, Ltd. (382147).—Regd. August 10. Nom. cap.: £10,000. Dirs.: To be appointed by subs. Beryl Summerton, 15a, Station-parade, Northolt-rd., S. Harrow, and Evelyn G. Smith, 21, Avenue-rd., Boxley Heath, Kent.

Colton Builders' Suppliers, Ltd. (382229).—Regd. August 16. Globe Works, Water-lane, Leeds, 1. Nom. cap.: £1,000. Dirs.: M. Tomlinson and G. Hylton, C.A.

Decorative Art Guild, Ltd. (382276).—Regd. August 19, 1943. Brettenham House, Lancaster-place, W.C.2. Bldrs.' decorators, contractors, etc. Nom. cap.: £2,000.

Nailsworthy, Ltd. (382301).—Regd. August 20. 10, Lancaster-terr., Merthyr Tydfil, Glam. Bldrs.' and decorators' mchts., etc. Nom. cap.: £200. Dir.: C. G. Burns.

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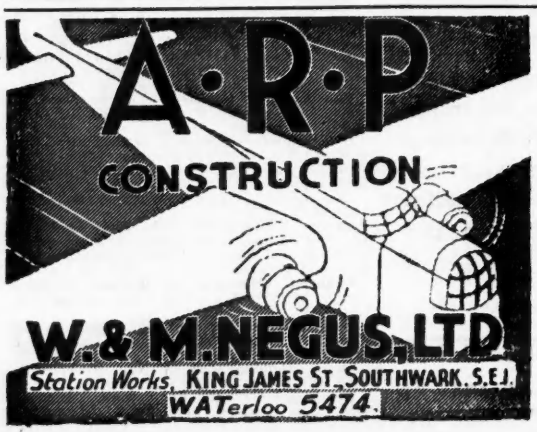

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